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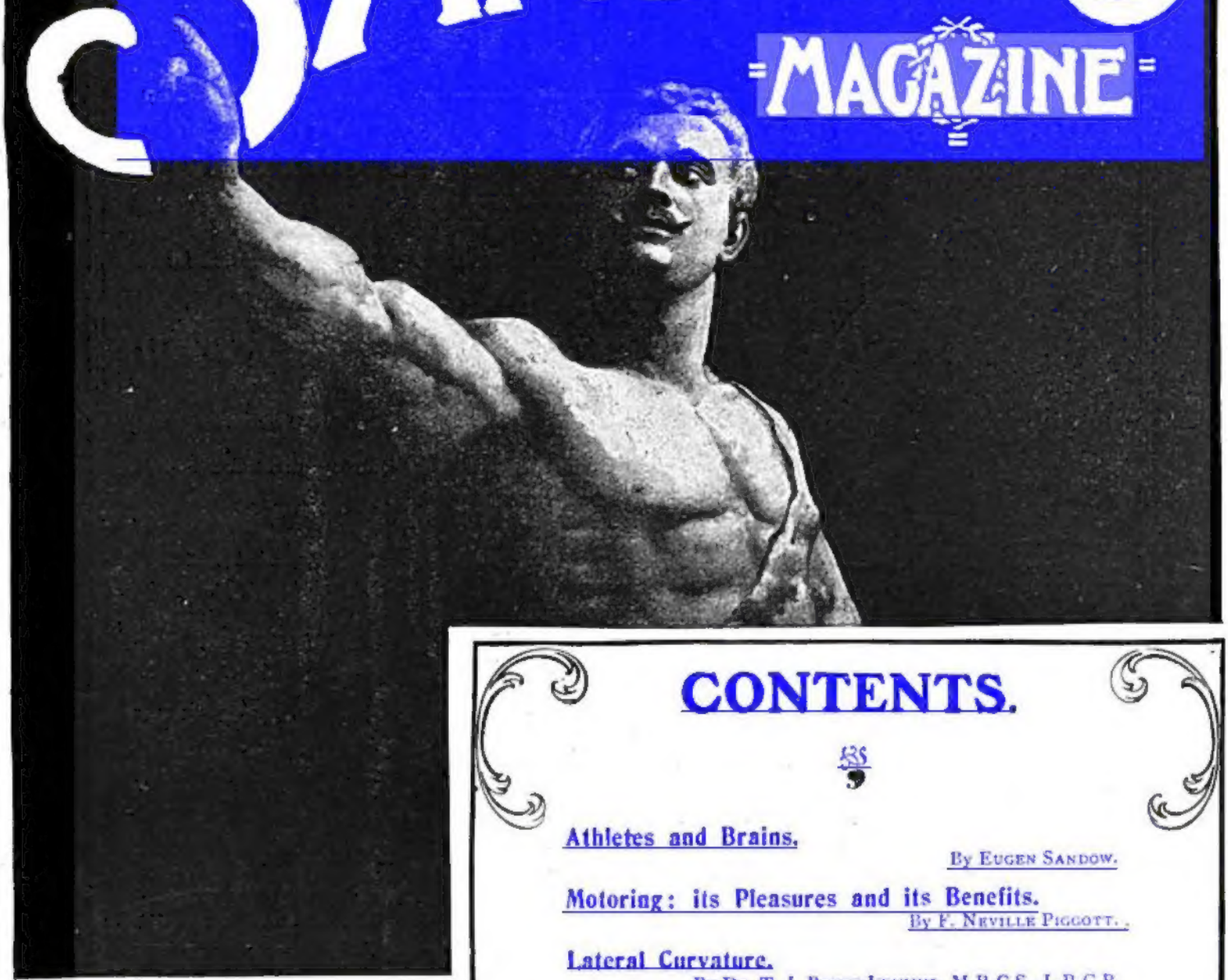

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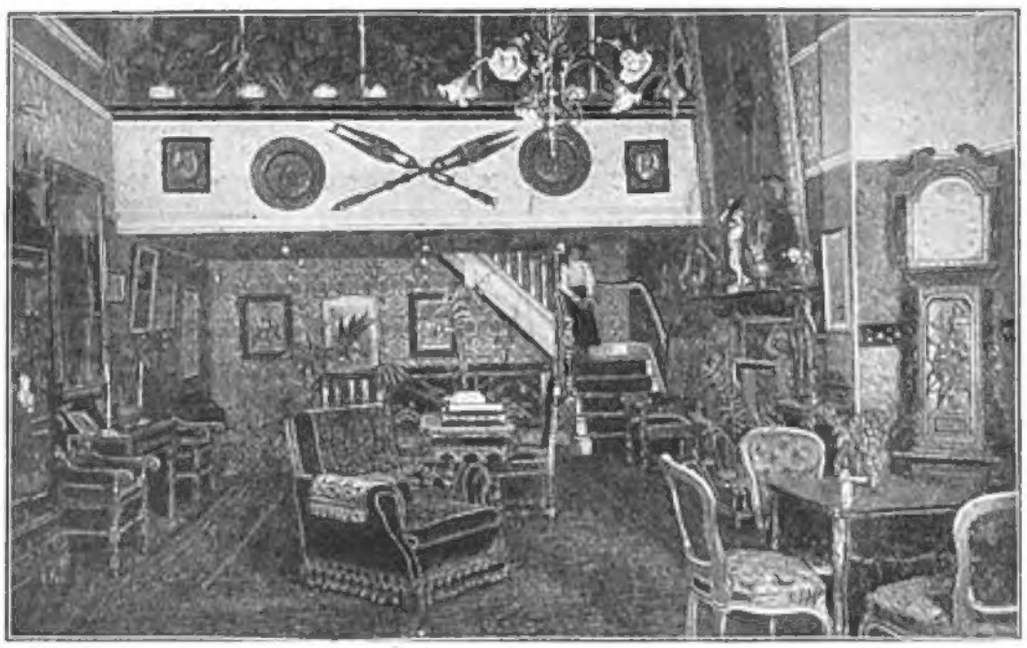

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THE MAN BEAUTIFUL.

BEAUTY has so long been considered an attribute exclusively pertaining to women, that the mere man may ask himself why among us moderns the Greek ideal is not as much in force as regards his own sex as it is with regard to the so-called fair sex. It has been argued, and with much show of reason, by philosophers, that man is inherently as beautiful as woman, both in form and face, the difference being one of kind, not degree. Owing to the stress of modern life, however, men have come to neglect their personal appearance, but this is a great mistake, not only from a social, but also from a business point of view, for first impressions are often the most important, and it is just as necessary for a man to give the best possible first impression by his personal appearance as it is for him to be neatly and fashionably dressed. These remarks apply more especially to defects of the face, which may either be absolutely repulsive, or at any rate give an unfavourable first impression. For example, redness of the nose, which may arise from quite a variety of causes having to do with the general health, is always put down by the unkind as an attribute of the tippler. Eyebrows which meet across the forehead give an exceedingly disagreeable impression, and are thought to be a sign of ill-temper. An ugly mole may mar even the most handsome face, and a birthmark is a hindrance to a man as well as a woman in the matrimonial market as well as socially, for people do not like to receive among their guests anyone who is repulsively disfigured, and I know of at least one man who shot himself because he could not bear to go about with a face one side of which was almost covered by a large port-wine stain.

Medical men are apt not to pay sufficient attention to mere matters of the personal appearance, which do not affect the health of the individual, and it has been left for a lady to take up a branch of science which has too long been neglected. This lady is extremely well known to the reading public as a high authority on health and beauty, and the clever editress of two very popular magazines, *Womanhood:* the magazine of woman's progress and interests, and *Baby: The Mother's Magazine*, a guide to the health and education of children. Mrs. Ballin has been in practice for upwards of twelve years, during which time she has cured over ten thousand cases of superfluous hair, redness of the nose, vein marks, moles, birthmarks, and other disfigurements in both sexes, and it is now becoming known that she devotes special care to gentlemen patients, so many of her lady patients having asked her to treat their husbands or sons. She treats men only for defects of the hair, face, and hands, such for example, as baldness, greyness, ill-shaped eyebrows, hair growing too high on the cheeks, acne, redness of the nose, moles, warts, and birthmarks.

Mrs. Ballin is particularly successful in severe cases of that birthmark known as port-wine stain, and in a recent interview she mentioned the case of an M.D. of the London University who, owing to a terrible disfigurement of this kind, was unable to get any but a poor practice in a poor neighbourhood. Mrs. Ballin entirely removed the mark, and he has now bought a West End practice in London and is doing remarkably well. In another case, a schoolmaster was nearly driven mad by the fact that he had a large mole on the tip of his nose, which afforded considerable amusement to his boys. After the mole was removed by this lady he became a happier man and able to obtain a better position. An amusing case treated by Mrs. Ballin was that of a gentleman who had very thick bushy eyebrows, and was extremely sensitive about them. Before proposing to the lady of his heart, he confided his trouble to Mrs. Ballin's sympathetic ears, and got his eyebrows re-modelled on a more approved plan. In another case a gentleman had a very ugly moustache, but having suicidal tendencies, was not permitted to use a razor. He was brought to Mrs. Ballin by his attendant, and the moustache removed by electrolysis, very much to the unfortunate man's satisfaction.

The majority of Mrs. Ballin's gentlemen patients, however, come to her for redness of the nose, and this she is able to treat most satisfactorily, partly by electrolysis, partly by dieting and by suitable local applications. An interesting case was that of a temperance lecturer, much hampered in his work by the knowledge that the persons he was addressing probably thought him a secret tippler; while another successful case was that of quite a young man who had been suffering from red nose, originally arising after an attack of scarlet fever. Being wealthy he had consulted almost every well known skin doctor in Paris and London, but was eventually cured by Mrs. Ballin after only twelve sittings.

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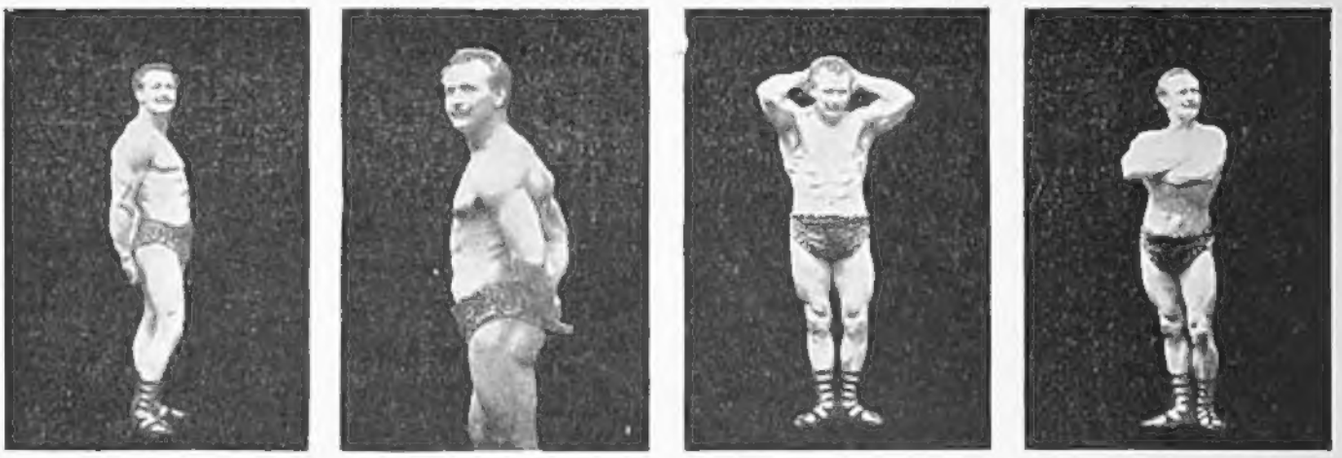

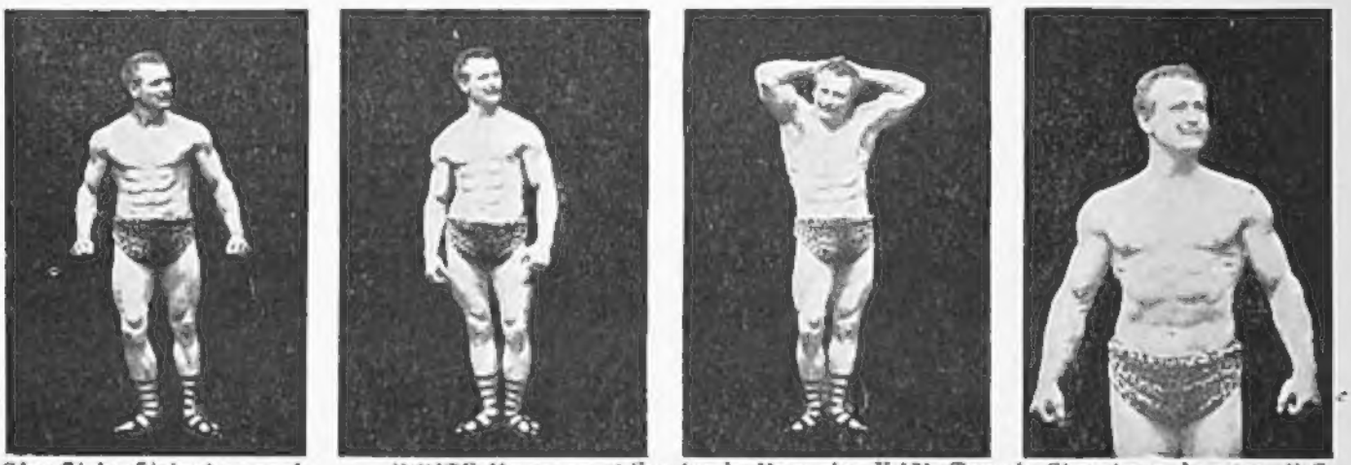

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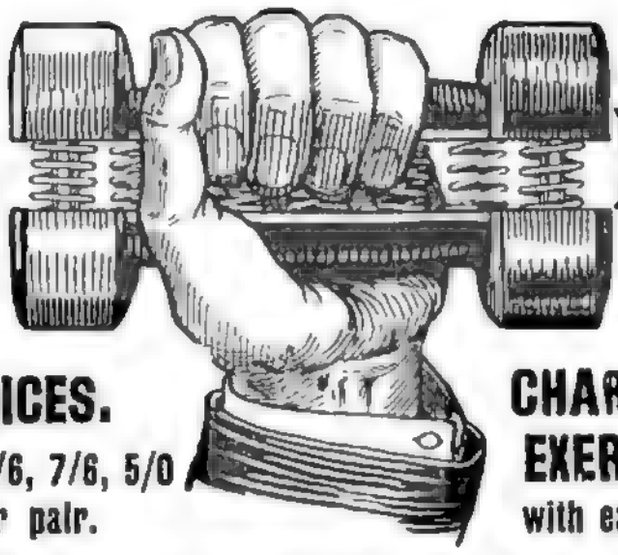

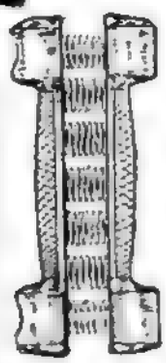

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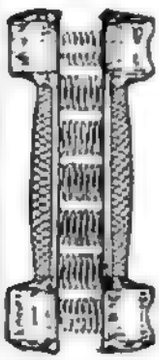

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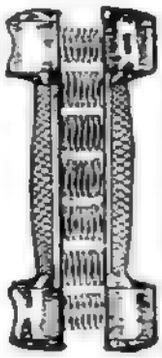

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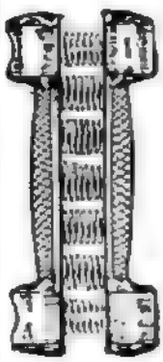

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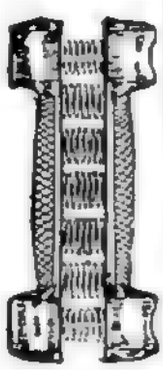

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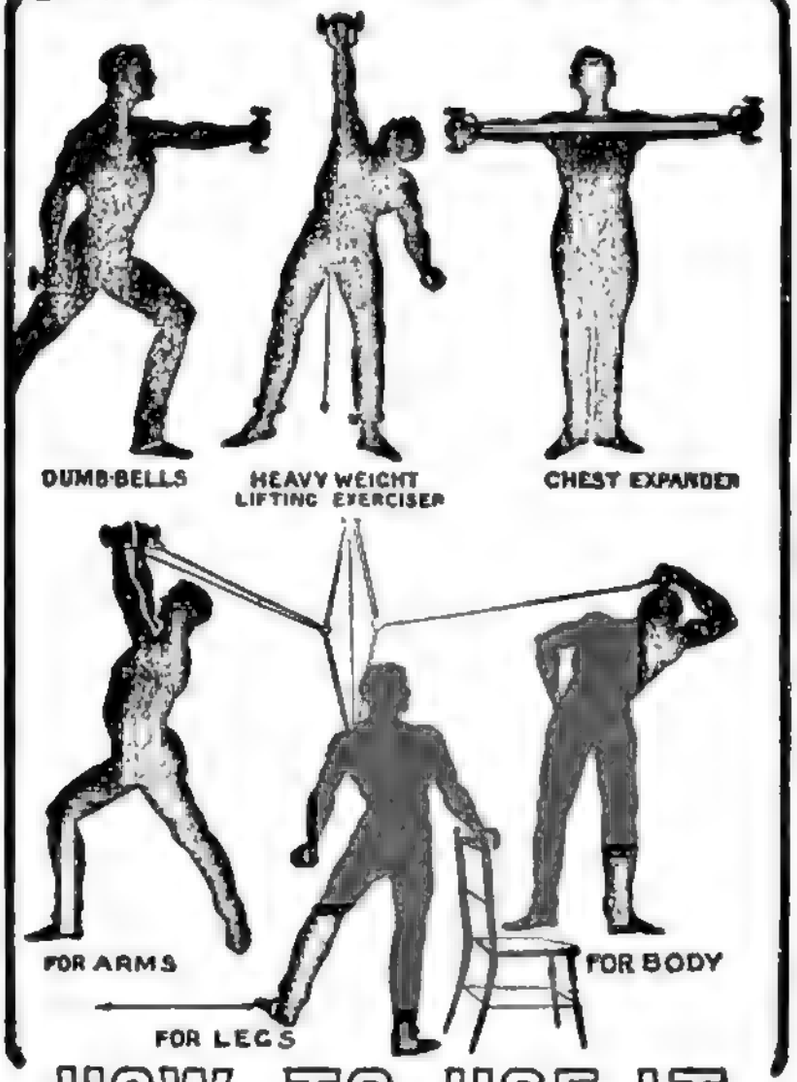

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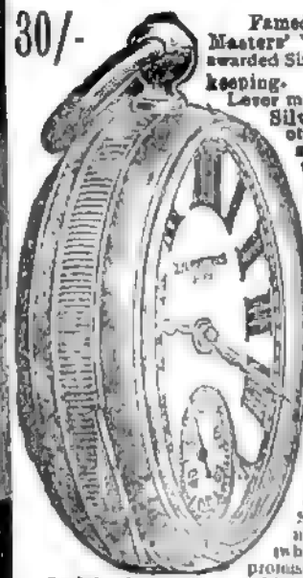

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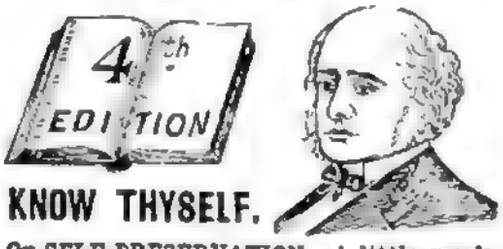

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A FIGHTING COCK—A DARLASTON MAN'S IDEA OF PLUCK.

(*See* "Physique in the Black Country.")

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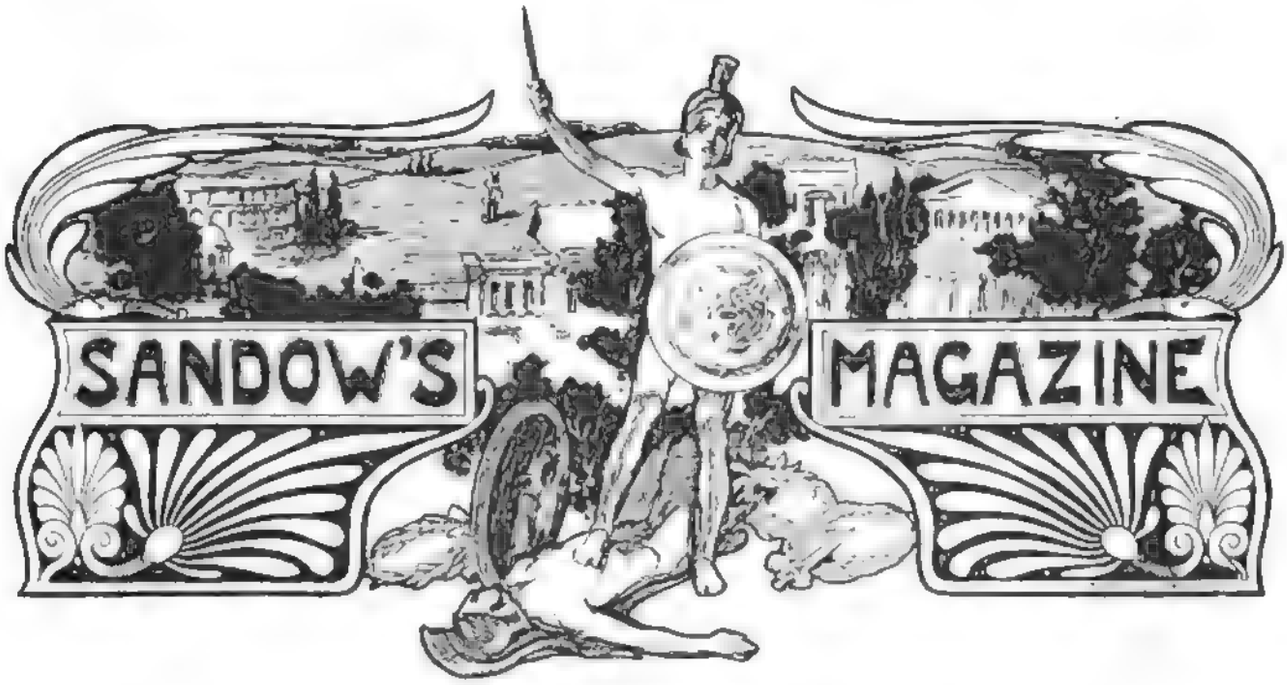
MOTORING—PLEASURE AND BUSINESS COMBINED.

(A party of Italian Military Authorities testing a De Dietrich omnibus up a steep road rom Val Sabbia)



OF

PHYSICAL CULTURE, SPORT, AND FICTION.

VOL. XIII. *NOVEMBER*, 1904. No. 77.

Athletes and Brains.

"THERE is no more stupid person than your man or woman who excels in games." Can anyone conceive a more absurd, nay, almost libellous, statement against the greater portion of the whole community? And yet this statement was made apparently in all seriousness recently, aye, and by a lady whose knowledge of the world, and physiology as a speciality, should have given her a far greater insight into things in general. As an athlete myself, perhaps it will appear presumption on my part to accept the challenge, and many will think, no doubt, that treating the matter with silence would have been the better way to show one's contempt for such an expression of opinion; but I feel that I must take up the cudgels on behalf of those who believe in and foster the practice of athletics as a means of maintaining our supremacy in the great battle of life, and answer the lady who has so far forgotten the laws of nature as to utter such words as those quoted at the commencement of my letter. It may be as well to give the name of the lady by whom the utterance was made, although it will be the means of giving her the public prominence she anticipates. Her name is Miss Arabella Kenealy, L.R.C.P., L.M. I have not the pleasure of the lady's acquaintance, but, judging only from her name and the tone of her remark, I should imagine that she is one who sees the world through blue-black spectacles; still I should be glad of the opportunity of proving to her the utter absurdity of her statement personally. This, however, may not be possible, so I am taking the opportunity of joining with those who have far more qualifications than I have to speak on the question, and enter my protest against such a calumny.

Really, in the face of actual facts it seems almost absurd to take any notice of the lady's statement, especially when one looks around

and sees in every branch of life the many shining lights who are, or have been, luminaries in the athletic world. Do we make men minus brains Lord Chief Justices, leading members of the bar, statesmen, etc.? Of course not, and yet here we have innumerable men of letters, who have been and are responsible for the proud position this country holds at the present day, cast upon one side on the plea that because they have been athletes they are lacking in brains. If Miss Kenealy could have her way, then that fine old saying which I quote so often—*mens sana in corpore sano*—would have to be subjected to revision, for the combination is not possible without some means of bringing about the healthy body. But, of course, nothing of the sort is likely to be necessary, for one must look upon such as the lady in question more in sorrow than in anger, and attribute it to an outburst of maidenly disapprobation.

I can almost picture Miss Kenealy's ideal. The one I am thinking of came from a most fertile brain—none other than the famous novelist, Mr. H. G. Wells, who in one of his stories depicted the inhabitants of the moon as people of abnormal brain development, with enormous heads and little or no body, whose menials were employed in spraying continuously these enormous craniums in order to prevent them from bursting with their tremendous weight of knowledge.

The remark has called forth some very strong letters of dissent from such prominent men as Lord Alverstone, the Lord Chief Justice, Dr. Warre, the headmaster of Eton College, Rev. and Hon. E. Lyttelton, headmaster of Haileybury College, and others, and a contemporary in dealing with the subject makes some very pertinent remarks which, should they reach the eye of Miss Kenealy, ought to make her wish the words had been left unsaid. Speaking of the opinions of the above-named gentlemen, the paper goes on to say: "These opinions are hardly likely to weigh with an L.R.C.P. who stands committed to so sweeping a statement—as if any such were true of any mortal thing. The universal negative is a pitfall easily avoided, one would have thought. No doubt there are stupid athletes; there are even stupid doctors, at least of the male sex; but *caeteris paribus*—to drag in another bit of Latin that not all the Kenealys, past, present or to come, shall filch from us—does it not approve itself to common sense that the healthier a man's body, the fitter must be the man's mind for its work? Whence come blood and muscle and bone and nerve; what builds them up? Obviously food. How? By assimilation; and what fits the body to that most important of all its functions? Why exercise, fresh air and cleanliness, but above all exercise." No finer argument than this could be offered to refute such a statement as that of Miss Kenealy, who I think may rest assured that any effort on her part to change our views as to the value of exercise will be treated with that contempt which it deserves.

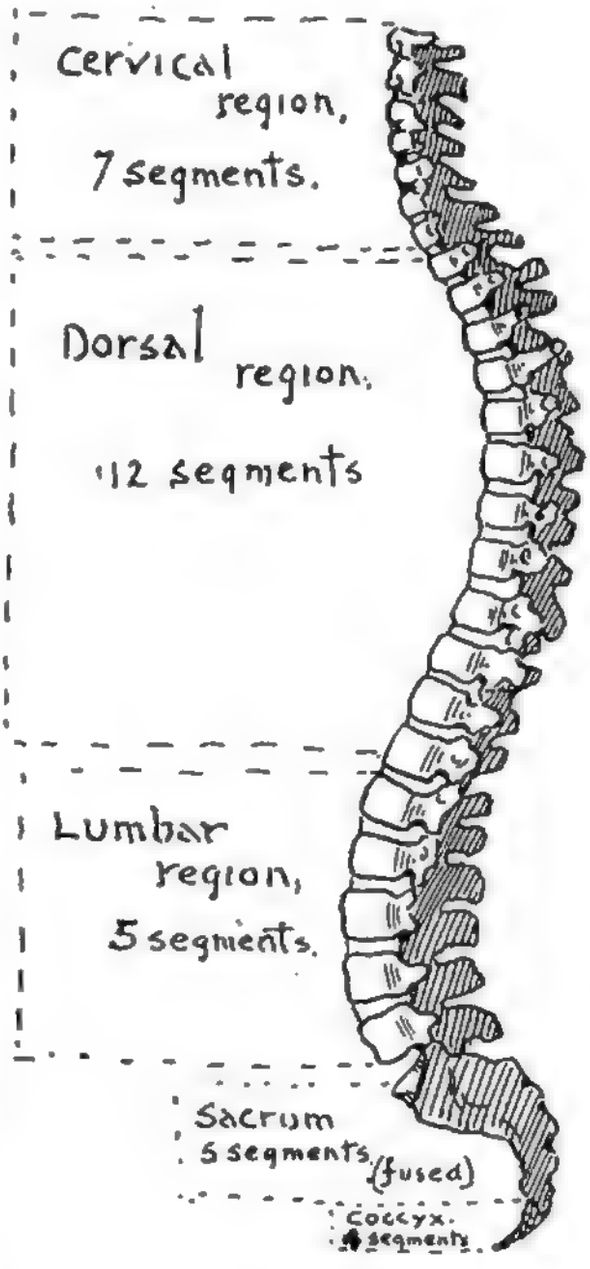
I wish to take this opportunity of calling the attention of my readers to one of many new features which I propose introducing into the Magazine with the commencement of the new year, which will soon be with us. During my travels I have found that some means of more mutual intercourse amongst physical culturists of all nations is necessary. We in England are anxious to know what is being done, say, in Australia or America, in the great cause of physical culture. To assist towards this end, I intend to devote a certain amount of space each month to the progress of the cause throughout the world. But to enable me to do this, I must invoke the co-operation of those who have their own welfare and that of the country at heart, and ask them to forward me letters setting out what is being done in the various parts of the world. For publication in the succeeding issue these reports must reach the Editorial Offices of the Magazine, 131, Temple Chambers, E.C., not later than the 12th of the month.

Lateral Curvation, Excurvation, and Incurvation of the Spine.

By T. J. PRYCE JENKINS, M.R.C.S. Eng., L.R.C.P. Lond.

Illustrated by F. F. Bush.

LOSS of tone in the system, more especially loss of muscular tone in growing girls, makes them extremely prone to abnormal curvatures of the spine. Few girls between the ages of twelve and fifteen escape a tendency to exaggeration of the natural curves of the spine. In many instances the deformities are so slight that they are scarce recognised as disease, but constant injurious circumstances which prevent the due development of muscle frequently tend to increase slight deviations until decided characters of obvious deformities are assumed. Before we can intelligently follow the nature of the deformities indicated by the title of this article we must be equipped with, at any rate, a very trifling knowledge of the structure of the backbone or spine.



Side view of Human Spine, or Vertebral Column, showing curves and Bone regions.

The vertebral, or spinal column, Fig. I, as the backbone or spine is technically termed, consists of a number of separate bones placed one above the other, forming a bony tube or column which encloses the spinal cord (nerve prolongation from the brain), supports the head, and gives attachment to muscles and to the ribs. The column is composed of twenty-four separate spine bones or vertebræ, and one large bone at the base of the column, called the rump bone, or sacrum, to the end of this bone is attached the rudimentary tail of man, consisting of four bones called the os coccygis, which is often vulgarly termed

the whistle bone. Between the bodies, or cylindrical front portions of the spine bones or vertebræ, are placed gristly elastic discs,

FIG. II.

which increase the length of the spine, and act as indiarubber pads or buffers, thus lessening jars or shocks, and allowing a greater range of movement to the whole column. Although there is little movement between a spine bone and its neighbours (so strongly are they bound together by fibrous bands or ligaments), the arrangement of twenty-four bones—yielding a little—allows of a considerable amount of twisting and bending without injury to the nerve cord contained within. There are in the column seven spine bones of the neck, or cervical vertebræ, twelve spine bones of the back, or dorsal vertebræ, and five loin bones, or lumbar vertebræ. The most movable regions of the spinal column are the cervical or neck, and the loin or lumbar portions. So great is the mobility at the loin that by constant practice an acrobat can perform most wonderful contortions. In a backward bend, such as is shown in Fig. II, the movement would not be possible were it not for the great flexibility of the joints of the loin bones.

It will be observed on examining the accompanying Figs. III and IV, that the human spine possesses an S-like curvature. This arrangement gives a springiness to the column which lessens jars and shocks; it also secures greater strength, and is better adapted to maintain man's natural posture—the erect position.

It has been said that the child first dissociates himself from the brute creation and takes on the dignity of man when he leaves off "going on all fours." This statement is wide of the truth, for it will be

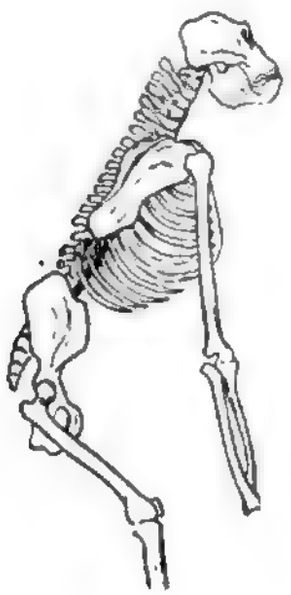


FIG. III.—SKELETON OF GORILLA.

FIG. IV.—HUMAN SKELETON.

plainly seen on comparing Fig. IV (the human skeleton) with Fig. III, which depicts the skeleton of a gorilla, the nearest approach in

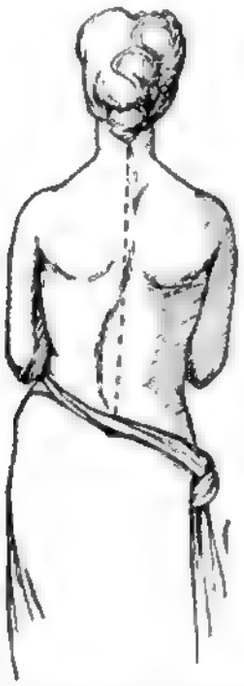


FIG. V.—LATERAL CURVATURE.

structure in the animal kingdom to man's incomparable frame, that man alone, of all animals, is *formed* to go on his feet in the erect position. Man's skull is so placed upon the upper spine bone of the vertebræ column that it is nearly balanced (Fig. IV), but the skull of the gorilla is so far from being balanced (Fig. III), that the greater portion of the head hangs forward—the attachment of the skull to the spine being situated much farther back. The beautiful S-like curve of the spine is entirely absent in the gorilla, and its upper limbs reach nearly to the ground. Man's upper extremities do not extend as far as the knee, but if the natural S-like curve of the spine is lost, so extreme is lateral curvation or excurvation of the spine in some cases that the neglected sufferer assumes very much in form the appearance of the trunk and limbs of the gorilla. The gorilla maintains the erect attitude much in a similar manner as the performing dog imitates the posture with great and difficult effort. Man, by his construction, more readily keeps his balance than any other animal. A glance at Fig. I shows that the bones of the spine increase in size and strength from above downwards. The lower spine bones have a greater burden to bear. This fact affords additional structural evidence that man is naturally made to assume the erect position. It must be observed that the spine occupies the median line at the back of the trunk, and prominences or processes—which are called by charlatan bone-setters the buttons of the back—give attachment to muscles, and may be readily felt to be in a straight line on drawing the finger along the backbone. The natural curves of the spine are hollowed and rounded from behind forwards, so that the S-shape of the column is seen only on taking a side view. Besides the curves giving the S-like shape to the spine, there is found, on close examination, a slight—very slight—lateral curvation, the convexity, or rounded direction, of this curve leans to the right side

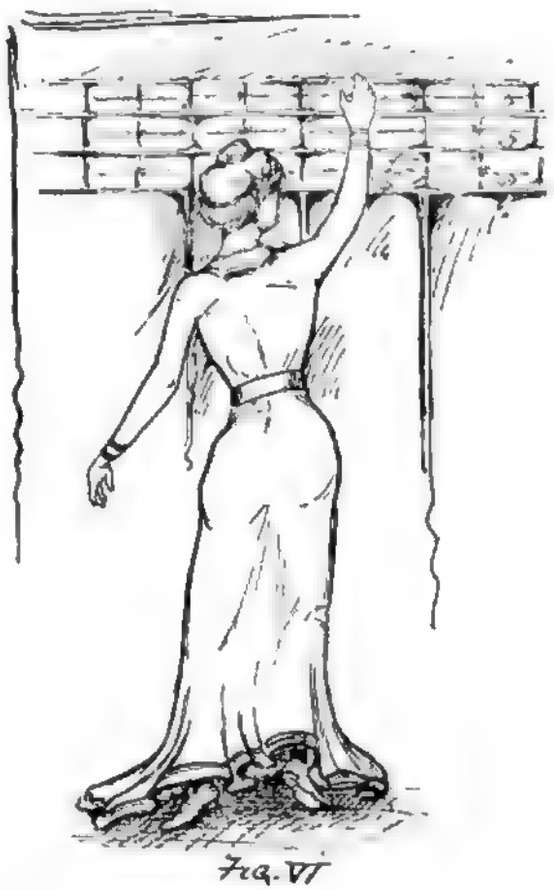


Fig. VI

of the middle line; it is caused by the greater use of the right arm in right-handed people, for a similar curvation is found in an opposite

direction in the spines of those who are left-handed. Any exaggeration of this lateral curvation is commonly known as lateral curvature of the spine. Girls are more frequently the subjects of this deformity at an age when they are just budding into womanhood—muscular tone at this critical period is often reduced to a minimum through impairment of the general health. Although it is more often seen in young girls, it is common enough in girls of a more mature age.

Reference to Fig. V shows the nature of the deformity in a well marked case of lateral curvature. Instead of occupying a median position in the back, indicated by the dotted line, the spine takes a serpentine course, crossing the middle line somewhere about the "small of the back." The convexity or rounded portion of the upper regions of the spine looks to the right shoulder, and the lower part of the spine gives a bend towards the left hip. Of this double curvature the upper lateral curve is directly dependent on causes producing it, whilst the lower curve directed to the opposite side is but a compensatory one simultaneously produced to counterbalance the loss of equilibrium which is occasioned by the upper curve. In this way, in spite of the deformity, the erect position is maintained. It will be further observed that the right shoulder-blade is elevated and stands out prominently, and at the same time the left hip is also thrown out into prominence. In addition to the lateral serpentine bending of the spine there is a torsion or twisting round of the bones forming the column within the curves. With this twisting in the dorsal region—knowing as we do that the ribs are attached to the dorsal vertebræ—there is an alteration in the shape of the chest, and in consequence the left breast is thrown forwards and outwards and forms a decided projection. In more advanced cases than the one depicted in Fig. V, the accompanying deformities are not only enormous, but hideous in the extreme. In the early stages of the disease the spine retains a great deal of its flexibility, and under proper systematic muscular exercises may be restored to its original natural form. As the disease advances the flexibility of the spine is gradually lessened and can only be brought into a straight position by manipulative interference of a surgeon, assisted by the action of certain muscles. When the disease has existed for some years a consolidation of the spinal bones takes place, the spine, becoming rigid, resists all efforts at restoration and a permanent distortion is the result.

FIG. VII.

The causes of lateral curvation of the spine are various, the common predisposing cause is, as has been stated, the lack of muscular tone. Girls of the upper and middle classes are more prone to the disease than the children of the poor. In the higher ranks of life habits of sloth and indolence are encouraged in girls to the neglect of health-giving exercises, the tone of the system is lowered and due muscular development is well nigh non-existent. The direct and exciting causes of lateral curvation are any circumstances which produce an inclination of the spine to one or other side for long periods, or an unequal development of the muscles of the back which are attached to the spinal column. Any occupation which requires the constant use of the muscles on the right side of the backbone will develop a greater strength in the muscles of that side which will tend to overcome the weaker and less developed ones of the opposite side, and

if there are contributory predisposing causes the spine deviates to the stronger side. A young lady serving behind the counter in the haberdashery department of a draper's establishment has frequently, during a day's work, to reach for her saleable, and often heavy, wares to a high shelf. (Fig. VI.) She has also, when the customer's purchase is completed, to replace the weighty box of ribbons or what not to its original position. In performing these movements the right arm is generally used and with it the muscles of the right side of the trunk; the muscles of the left arm and left side of the trunk are practically idle and are used only in company with those of the right to display the goods to the customer. Is it any great wonder if a young shop assistant, who is also the subject of enervating surroundings, should develop a lateral curvature of the spine? Lateral curvation is frequently induced in weakly school girls who are allowed to sit in a slovenly one-sided position at a desk.

FIG. IX.

FIG. VIII.

Fig. VII shows the one-sided position of the body in sitting. This attitude maintained for many hours daily produces an inclination of the spine to the right. There are, of course, numerous employments in which a one-sided position of the body is necessitated, such as nursing with one arm, and it may be here stated that it is wrong and highly injurious for a young and growing girl to be allowed—as is so often the case—to nurse her younger brothers or sisters. The habit of sitting cross-legged or of standing on one leg throws the spine out of the middle line of the back. Art students standing at their easels have a great habit of poising the body on one leg. Fig. VIII represents a young lady art student in the position so frequently assumed. Whilst delineating the classic curves of Venus de Milo she is all unconscious of the possible destruction of the beauties of her own figure.

Youths are not exempt from this affection of the spine, and growing lads who carry weights with one arm are frequent sufferers. Fig. IX shows the lop-sided position taken up by a boy heavily weighted with a pail of

milk. It is not an uncommon occurrence to see a dairyman's son of tender years—before and after school hours—assisting his father in the distribution of milk.

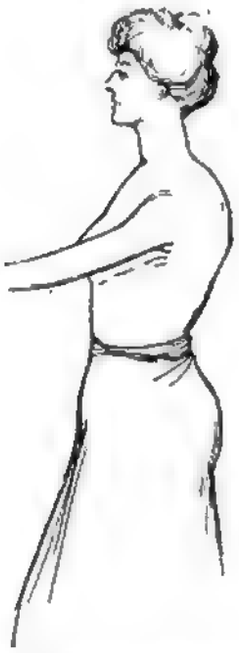


FIG. X.—EXCURVATION, OR ROUND SHOULDERS.

Besides the causes already enumerated, any acquired or congenital deformity which carries with it inequality in the length of the legs, such as knock-knee, flat-foot, shortening through fracture, or the use of a wooden leg, will throw the spine over to one side.

Lateral curvation commences so very gradually that in its early stages it is often overlooked. The earliest symptoms are comparatively trivial, but pain or a feeling of weakness in the back, with possibly a slight stoop, should never in a growing girl be lightly passed over. Early recognition of the deformity is all important. Later there is a palpable "growing out" of one of the shoulders, or one of the hips, and the disease is unmistakable, as shown in Fig. V. Systematic muscular exercises, combined with tonic medicinal treatment, are the proper methods of dealing with most cases of lateral curvature. The muscular exercises are directed to the development of the weaker sets of muscles on the opposite to that which the deformity leans. In time the weaker muscles are made sufficiently strong to pull over the spine and restore it to its natural position. The surgical preventive measures are obviously physical exercises which develop equally all the muscles of the trunk, together with the correction of exciting causatory habits.

Excurvation of the spine (Fig. X) is a decided exaggeration of the natural curve which is found in the dorsal region of the spine. This condition is commonly known as "round shoulders," and it is scarcely necessary to point out that excurvation, like lateral curvation, varies in degree. It is brought about in debilitated growing lads and girls by slouching habits. The muscles which share in the general debility are incapable of retaining the normal S-like curve of the spine. In older persons excurvation is produced by occupations which demand a stooping attitude for their pursuit, hence it is often acquired by gardeners, agricultural labourers, watchmakers, typists, clerks, &c. The correction of stooping habits, the administration of tonics, and the use of duly regulated muscular exercises in the young will restore the natural contour of the figure The confirmed stoop of aged persons cannot be rectified. Again, the obvious preventive measure is culture of the muscles of the back.

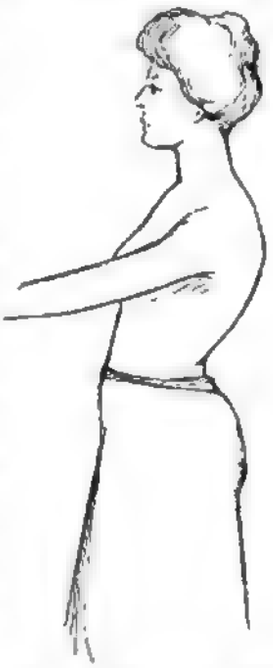


FIG. XI.—INCURVATION, MARKED HOLLOWING OF THE SMALL OF THE BACK.

Incurvation of the spine (Fig. XI) is an exaggerated condition of the hollow of the small of the back—this is its most common situation, although at times it is manifested in other regions of the spine. As a rule, incurvation is an accentuation of a natural curve brought about as a compensation to maintain the equilibrium of the spine when this is diseased elsewhere. Treatment is directed to the removal of the occasioning cause.

"Overwork."

By FELICIA WILKINS.

"It is the pace that kills."

SCIENCE is proud of its many discoveries in Nature. Almost as proud, one may say, as if the discoverers had invented the powers. The marvellous powers of electricity in wireless telegraphy are acknowledged, the irresistible curiosity of X-rays is showing us further wonders of physical man, and now the infinitesimal yet limitless force of radium is known, and we hear it said that soon, perhaps, the elixir of life may be discovered, and we shall be able to live for ever—a most doubtful blessing under most circumstances.

As a matter of fact man possesses the elixir of life in himself, and it is the only one he is likely to find so long as human nature is so physically unfit for continuous life.

The meaning of the word "elixir" is to *distil* or *purify*. The elixir of life, therefore, is purity of diet and surroundings, purity of thought and action—for in purity is the source of strength. All work should be in proportion to this individual strength. The question then is, what is the individual strength—so that overwork may be avoided?

There are two forces in the nature of man. Nature is dual in all her ways, she works in pairs. There is up and down, warm and cold, good and bad, life and death, man and woman, and so on. The nature of mankind in its turn is composed of two forces, making a complete whole in each individual, else there could be no perfected individuality without marriage—a manifest unfairness.

These two forces of man's nature are two extremes. The positive or electric force, and the negative or magnetic and receptive force. If these two forces were developed in absolute balanced proportion, man could go spinning on for ever without decay or death, as the north and south poles form a polarity, or equal opposite forces, upon which the earth progresses with ceaseless and ever-recurring energy.

Three broad principles are the guides to the attainment of this balance or absolute strength.

The apparently minor duty of physical culture comes first—a perfected physical organism; secondly, concentration of mind must be exercised for the strengthening of will-power—the motive or positive force in character; and thirdly, comes the cultivation of the imagination, or intuitive force, the negative or receptive side of Nature.

Each individual bears his own unequal proportion.

The too positive—self-willed and selfish—rush through life knocking off their own corners in ceaseless friction with other positive natures, incited thereto by the success with which they culpably knock off the corners of the too negative individuals. These are they who will perish rather than give in—and they do perish.

The too negative natures are buffeted through life, and culpably allow their corners to be knocked off by the too positive members of the community. These natures will perish rather than suffer the disagreeables of resistance—and they do perish. And so the world wags.

Overwork, with all its penalties and physical injuries, comes from the over use of the strongest natural force in each individual, be it positive or negative. Indeed, all that is wrong or inharmonious in our lives, individually, is due to our failure to bring these two forces in our nature to a common level.

It is in fact, the breaking of Nature's law that all things should be trained, and worked, to a common or temperate mean.

The law of balance, and with it continual energy and life.

The positive individual likes to rush, and push, and struggle, and after a certain time —dependent upon his maximum imperfect physical possibilities—mistakes excitement of the nerves for positive nervous energy. A doctor, or even an averagely observant onlooker, will see the signs of overstrain long before the sufferer realises the symptoms himself. He feels a bit down perhaps, and at Whitsuntide, or during the summer holidays, will have a complete rest. So he fizzles and bubbles at high pressure, until some special strain proves the one degree too many, and the mischief is done.

Of course, the usual excuse is, "we are victims of this high pressure system of civilisation, we cannot stop to level up our forces, we must rush with the times or we shall be left in the rear." We think we are eating our cake and keeping it too. High pressure can only be maintained for varying times, and then something has to give way. It is this fact that is so hard to realise. We allow the fizzling and bubbling to go on, because fizzling and bubbling seem so harmless and insignificant in themselves; then, suddenly and without any more significant warning, the whole machine gives way, and there is nothing but a few disconnected, and more or less damaged, portions left of what was last week, apparently, a good machine. Then we take our shattered constitution to the doctor, and expect him to put the bits together again, without the joins and seams showing. But no doctor can do it, and we remain a more or less patchwork article to the end of our considerably shortened days.

But we could not stop, we say, and we did not, until the breakdown occurred, and then, somehow, we do manage it, because we must.

Negative individuals are as liable to overwork, but from the opposite reasons and causes. Rather than vigorously resist, they doggedly grind on, accepting their circumstances with ever fuller negative strain, until Nature is avenged, and they drop.

Positive and negative alike should be guided by Nature's method of *blind justice* in all her ways. She sheds sunshine and rain alike upon the just and the unjust; light and darkness are common to all; fresh air for all, if we choose to have it; food for all, if we choose to get it; love for all, if we take the means to deserve it; and an abounding energy and strength for all, if we would but work upon her principles.

Learn to appreciate everything at its true worth, and remember that Nature's laws have *first claim under all circumstances*, for so can we best serve our purpose here.

Be ever ready to work, and help, to the very best of your abilities, but see that your life is ordered *strictly according to the requirements of justice both to yourself and others.* If you are too positive, see that you measure out to others justice, tempered even with mercy—for by so doing will you best help yourself.

If you are too negative, see that you obtain exact justice for yourself—for by so doing will you also best help others.

A Race for a Life.

A TRUE STORY OF THE FENS.

ONLY those whose lives are spent in the heart of Fenland know what the word "life" there means. True, in the summer months, when all nature is at its best, and the fens are full of life from the glorious sunrise until dusk, and again in the autumn, when the crimson glow across the wide expanse seems to tinge the land with gold,

"RUSHING TO THE CHILD'S SIDE, I FOUND HER IN A BURNING FEVER."

then life is full of pleasure. But in the winter, when all around is bound by the iron grip of King Frost, and, maybe, covered with a mantle of snow, which the eye traverses wearily for miles around, with nothing but an occasional black stump to relieve the monotony of the view; when, during the day, all nature seems asleep beneath the white covering, and no sound breaks the stillness, except, perhaps, when the lowing of some cattle miles away is heard through the rarefied air; when the wildfowl, driven inland in search of food, make night hideous by their plaintive screeches and calls. But for their visits, however, we should fare badly at such times, for we who are miles away from civilisation are largely dependent upon them for our food during these weary months. There is, however, one redeeming feature which, with the blazing hearth and cosy chimney corner, stands alone in that category, and one which is largely concerned with the story I am about to tell as it was told to me. It is skating to which I allude. As nearly everyone is aware, ditches, or "drains," as they are locally called, take the place of hedges in the fens, and these little channels in such open country are fit for skating upon after a very moderate frost. This affords the Fenman the early opportunity of obtaining his chief winter relaxation—a spin on his "pattens."

Jem Farrar was a splendid specimen of a typical Fenman—tall and broad, but as lithe as a kitten, the picture of an athlete, and handsome to boot. His wife, too, looked the picture of health and a credit to any man, but, strange to say, their only child, a four-year-old daughter, was a delicate little creature who looked as if she had been brought up in the heart of some great city, instead of in the open fens. Jem for years had been looked upon with admiration at all the skating races, and up to two years previously had held the title of champion, but although he rarely competed now, he was as fleet almost as of yore. The story told in Jem's own words is as follows:—"Winter had only just arrived, yet our little Elsie had already felt its grip, and had had to take to her bed, and all the mother's care was required to nurse her. I had left home before sunrise with my gun for the purpose of finding some wildfowl. Returning after a successful day, I arrived home in good spirits. The look on my wife's face quickly changed all that as she met me at the door, for it told me that something was wrong, and rushing to the child's side, I found her in a burning fever.

"The nearest doctor lived at the village some nine or ten miles away, but he must be fetched at any cost, and in less time than it takes to write it, I had buckled on my skates, and after a hasty farewell to the wife and chi'd, away I sped to save, if possible, my child's life.

"I knew well the paths of the seemingly trackless fens, and, with my darling's life at stake, seemed almost to fly along, never pausing except where the dykes crossed the channels and marked a boundary. My powers of endurance were standing me in good stead now. With bended back and swinging arms, I, a solitary figure, apparently chasing the wind, must have looked weird in the chill moonlight and lonely landscape.

"Barely half an hour had elapsed when, with panting breath, and steaming from my exertions, I reached the doctor's house.

"In reply to my hasty summons, the servant said that the doctor was in—('Thank God!' from me)—but was at dinner and could not be disturbed.

"'But it is a case of life or death,' said I, and without more to-do the servant went and told her master.

"Dr. Morton descended immediately, and upon hearing the bad news, prepared to start. But a difficulty arose, for to harness the horse and take the road would under existing conditions have taken too long.

"Suddenly a thought came to me.

"'Get me a long strap,' said I.

"This having been obtained, I asked the doctor to bring his skates with him, and then led him to the dykes outside the village.

Again donning my pattens, I instructed the doctor to do the same, meanwhile advising him as to his course of procedure.

"'I'm more used, doctor, to these narrow gullies than you, so you just put your feet together and let me pull you along.'

"'But your strength will never stand the strain, Jem.'

"'With my child's life at stake, doctor?'

"Both being ready to start, I fastened the strap 'round the doctor's waist, and, securing the other end to myself, we were soon skimming over the ice on the return journey of the race to save the little one.

"The pace was not so fast as when I started from the cottage, for I had a heavy burden to draw. Still, rapidly we closed upon our goal, I praying we might be in time to save my darling. At last the light from the cottage hove in sight, and in a few moments we were inside. We won that race, for—thank Heaven—the child was still alive, and now a bonny girl graces the cottage door to meet her old father on his return from work."

F. N. P.

"I FASTENED THE STRAP ROUND THE DOCTOR'S WAIST, AND, SECURING THE OTHER END TO MYSELF, WE WERE SOON SKIMMING OVER THE ICE."

The Hygiene of the Skin.

PHYSICAL CULTURE AS A CURATIVE AGENT IN SKIN AFFECTIONS.

By JAMES STARTIN, M.R.C.S., &c. (Eng.).

THE charm of a clear, healthy skin, and its usual accompaniment, a fine complexion, is universally acknowledged. Together, in either sex, they form one of the chief elements of beauty, and those who are endowed by nature with these beneficent gifts are indeed favoured ; but if they wish to retain this beauty, they should give it their especial care.

From the earliest period to the present time never was there an era when women did not try to make themselves beautiful.

The care of the complexion is further a duty which every parent owes to him or herself, and to their children. Regularity of feature and a perfect development of form are of little avail if the complexion be not good, and to ensure the latter being all that could be desired, there must be conformity with those rules and regulations that govern our existence.

The conditions of life in which we live, as a highly civilised nation, exert a powerful influence upon the structures which combine to make up our organism, but perhaps their influence is most plainly seen upon the skin. A proper care of the skin is an important factor in the prevention of most cutaneous disorders. The health of the skin is much the same as the health of the body. We may try to define health, if we can, but it is indefinable. "It is that state of our bodies in which the functions go on without our notice or observation, and in which existence is felt to be a pleasure ; in which it is a kind of joy to see, to touch, and to live." This is health as nearly as it can be described. Yet the skin is apt to be quite disregarded, and by the majority of the community less attended to than any other organ of the body. It should not be considered as a mere covering to defend us from the effects of heat or cold, but as one of the most important organs of our body, without the constant activity and agency of which we must look for neither health nor long life. In the neglect of the skin in modern times lies the secret source of numberless diseases and evils that tend to shorten our existence. From whatever cause they result, the morbid phenomena of eruptions of the skin show themselves at all periods of life, in every rank, and in every condition of civilisation.

I have said that the skin is one of the most important organs of our body. This will be readily appreciated when it is realised that the skin is our greatest purifying medium. Every moment of our lives a multitude of useless, corrupted, and worn-out particles evaporate through its numerous small openings in an unperceived manner. This evaporation is inseparably connected with our lives and the circulation of our blood, and by it a great part of the impurities of our bodies is removed. If, therefore, the skin be inactive and its pores be stopped up, an acridity and corruption of the juices will be the inevitable consequence, and most dangerous diseases may ensue,

Just as the state of the skin affects that of the body, so *vice versâ* does that of the body affect the skin. Almost everyone nowadays knows that faulty digestion, with its consequent train of ills, constipation, insomnia, nervous breakdown, and general loss of vigour, amongst others, has a most detrimental effect upon the sufferer's complexion.

In such cases it is not of the slightest use to attempt to restore the skin to a healthy state until the cause—the failure of the digestive organs—has been remedied. It is in skin troubles, or one may further say, in any of the troubles so brought about that systematic exercise properly directed, as in the case of Sandow's Curative Physical Culture, is certainly most beneficial.

In fact, exercise and careful diet are the only necessaries. The exercises must, however, be judiciously undertaken. Violent gymnastics or athletic games will do more harm than good in these cases until such time as the cause of the trouble has been dispelled. Hence sufferers would certainly be well advised if their medical man finds them organically sound to place themselves under skilled physical culture direction, such as that afforded by Mr. Sandow.

Now, the conditions necessary to maintain the skin in a sound and healthy state, to restore it when disordered, and to second our efforts when engaged in treating some of the many eruptions to which it is liable, may be classed under three heads :—

(1) That the body should be, if possible, well and judiciously nourished.

(2) That no undue tax or strain should be put upon the skin.

(3) That the skin be put under proper rules of management as to general hygienic surroundings, diet, clothing, and exercise.

The demands of either society or business prevent men and women from leading really healthy lives full of outdoor exercise. Hence we must look for a substitute. Until recent years the disfiguring retaliations which Nature invariably makes upon the skin, if her laws are violated, have been covered and concealed or driven inwards by means of lotions, cosmetics, or drugs, administered often by quacks, and of the most injurious nature.

Nowadays there is no excuse for this. Since exercise in the home some years ago received such a fillip by Eugen Sandow's advocation of scientific physical culture as a necessity of civilisation, the knowledge of the subject has increased by leaps and bounds. Sandow himself has been enabled, by means of the thousands of cases which have passed through his hands, to reduce the art of body building by exercise to a position quite approaching to an exact science.

The many medical men who have written articles upon the subject in this Magazine, and who have sent their patients for physical exercise treatment, have had the opportunity of studying its effects in cases covering a very wide field of troubles, so learning its benefits and its limitations.

So far as I am concerned, I have personally had occasion to observe with the greatest interest a number of varied cases which Sandow has had under treatment by correspondence from his establishment, and I am quite convinced that in a very great many troubles there is no better curative agent than his system of light daily exercise.

I do not mean anyone to infer that physical exercises are of benefit in every illness—far from it.

Curative Physical Culture is open to just as much abuse in the hands of the unqualified as the drug treatment is, so that my endorsement must only be taken to cover the case of such a man as Sandow, who prescribes exercises for each individual case upon its merits, and in accordance with, and subject to, qualified medical advice.

Are Athletes Stupid?

A LADY doctor, Miss Arabella Kenealy, recently expressed the opinion that "there is no more stupid person than your man or woman who excels in games." The views of several well-known people have been obtained by a correspondent on the following points:—

(1) Whether athletes are generally deficient in mental power?

(2) Whether the national pursuit of healthy games is not certain to result in a development of the physique of the rising generation?

(3) Whether international athletics are likely to develop good will among the nations taking part?

Among the replies received was one from Lord Alverstone, the Lord Chief Justice, who was a famous athlete in his university days. He briefly states that he "entirely disagrees with the view expressed by Dr. Arabella Kenealy."

"Perhaps Miss Kenealy," wrote Mr. Andrew Lang, "does not know much about the matter. Very clever people, as well as very stupid people, are good at games."

Dr. Warre, headmaster of Eton College, wrote: "As regards your first question, 'I do not think so'; as regards the second, 'I think so'; as regards the third, 'I am not sure.'"

The headmaster of Haileybury College, the Rev. and Hon. E. Lyttelton, also disagrees with Dr. Arabella Kenealy. "I have very little doubt," he wrote, "that successful athletes are no more likely nor less likely to say and do stupid things than other people."

The *Sportsman* takes up the cudgels on behalf of the athlete, as follows:—

"One parts unwillingly with so handy a tag as *mens sana in corpore sano*, but it will have to go, for Miss Arabella Kenealy, L.R.C.P., L.M., has said it, in this gracious fashion:—'There is no more stupid person than your man or woman who excels in games.' That is why we make of them Lord Chief Justices, eminent lawyers, statesmen of renown, and shrewd Stock Exchange members. Out of the fulness of their sportive knowledge they contribute to the papers, and even write novels, just as Dr. Arabella Kenealy used to do and may do again, when perhaps she would be better employed than in the inditing of letters with such opinions as that quoted. One would not contradict a lady to her face, but it is permissible to write, as Lord Alverstone does in this case, that one entirely disagrees with her. Mr. Andrew Lang opines that 'Miss Kenealy does not know much about the matter.' We shouldn't wonder. Dr. Warre, headmaster at Eton, 'does not think' as the lady does, nor does the headmaster of Haileybury College. These opinions are hardly likely to weigh with an L.R.C.P. who stands committed to so sweeping a statement—as if any such were true of any mortal thing. The universal negative is a pitfall easily avoided, one would have thought. No doubt there are stupid athletes; there are even stupid doctors, at least of the male sex; but *caeteris paribus*—to drag in another bit of Latin that not all the Kenealys past, present, or to come, shall filch from us—does it not approve itself to common sense that the healthier a man's body the fitter must be the man's mind for its work? A theory was propounded the other day, Mr. Chamberlain being cited in proof of it, that each of us has but a certain amount of nervous energy to expend either physically or mentally, but not both ways. One must rob Peter to pay Paul. Whence come blood and muscle and bone and nerve; what builds them up? Obviously food. How? By assimilation; and what fits the body to that most important of all its functions?

Why exercise, fresh air and cleanliness, but above all, exercise. One renews nervous and all other forces only after wearying them, and that renewal is by way of appetite. The healthy man may be a spendthrift of all resources where the invalid has to be niggardly of each and every one. The athlete approaches physical perfection; his healthy blood feeds a clear and healthy brain. Who gives generously of his strength shall have it restored to him tenfold in his progress from infancy to manhood. Mr. Chamberlain takes no exercise, therefore he is in brain power a giant. The tramp contrives to hide his mental superiority; and he takes none either, or the least possible.

BENEFITS OF THE COLD BATH.

By the Editor.

With winter coming on I can imagine an involuntary shudder from some at the mention of the words. For many years this cold bath has been a vexed question, and I at once admit that, except for those possessing good constitutions, such a principle is inadvisable. But why should we not all of us possess the constitution capable of deriving the great benefits of such a course. However, everything must have a beginning, so to those whose physical standard is not sufficiently high to take the plunge, I would at once point out that the temperature of the water may be so moderated that no shock may be experienced, and then the gradual process may proceed until at last the student of physical culture will be able to take his plunge after exercise with all the relish of a veteran. There are some inclined to look upon those who go in for open-air bathing in the Serpentine and elsewhere year in and year out as cranks, but whilst only those of the hardest of constitutions can possibly venture upon such a course, there is ample proof of the benefits accruing, for middle-aged and old men are to be found amongst those who are able to join the rest in breaking the ice for their morning dip.

It would of course be absurd to advise those troubled with constitutional weakness to venture into a cold bath at once, and to all I would advise the adoption of the plan of commencing the cold bath in the summer, with the result that you will gradually become acclimatised.

The Feeding of School Children.

THE following extracts from the description of the system of feeding poor school children in France, as supplied to *The Lancet* by their special Sanitary Commission, provides most interesting reading. Who knows but ere long the authorities at home may see their way to adopt some such excellent scheme :—

"Whatever political economists and others may say, no medical man would maintain that it is possible to educate an underfed child without great risk to his or her health. From the physical point of view there can be no question but that the child must be fed first and educated afterwards. Nevertheless, it has been asserted over and over again that in London alone there are daily some 50,000 children who go to school without breakfast. Whatever the basis of this assertion and even if exaggerated there is not the slightest doubt that many of the children who attend the primary schools are often injudiciously fed, sometimes insufficiently fed, and on some days not fed at all. To attempt to teach children thus suffering is to waste public money as well as to injure the child pupils. It is certainly a means of producing physical degeneration. By law and by taxation schools and teachers are provided, and yet food is more necessary than either school or teacher. This, of course, will be admitted by everybody. Only it will be said that parents ought to feed their own children. It is, however, the obvious fact that some parents either cannot or will not feed their children, and this accounts for much of the physical degeneration. Nevertheless, years have rolled by and nothing has been done of a systematic character. Here and there charitably inclined people have organised soup kitchens in connection with schools in very poor quarters, but these are sporadic local efforts, and are not to be relied upon. Also it is not charity, with its pauperising and degrading influence, that is needed, but a national scheme by which, in some way or other, every child shall receive, without imposing any humiliating condition, all that is necessary for its physical as well as its intellectual development. How this is to be done, and who is to pay the cost, are problems that will not be easily settled. But it can be done, it has been done, and what has been achieved in other countries will probably be attempted here. In any case, if a foreign nation feeds all its children adequately, and if all are not fed in England, then in time we shall stand at a disadvantage when compared with that foreign nation. Now, the nation in question is our nearest neighbour, France. Surely it behoves us to know what has been done so near at hand, and to see if this example may not serve as an object lesson.

In France every district is now compelled to institute a school fund. Originally they were intended to aid the cause of education by urging children to attend school, and by giving them prizes when they distinguished themselves. Now the law compels everyone to go to school, and also provides efficient teaching. Therefore the school fund administration need not attend any longer to such matters, but find ample occupation in seeing to the physical requirements of the pupils. The police compel the children to go to school, and the State, by the appointment of teachers, attends to their education. To the school funds remains the questions of food, of clothing, and of health-restoring holidays. All these are matters of great complexity, and necessitated many tentative experiments before anything like a satisfactory system of feeding the children was established. In regard to clothing and to sending unhealthy or debilitated children to

the country, it may still be said that more might with advantage be attempted. But if in this there remains room for further improvement, it may now be said with confidence that in Paris and in most other places every child attending school receives a wholesome and a sufficient meal. Personally I can only speak of what I have seen in Paris, but the law applies equally to the whole of France, though the success of its application must depend to a large extent on the devotion or intelligence of each local school fund committee of control.

That the question of health predominated in the management of these funds is shown by the preference very generally given to school colonies over school excursions, where there was not money enough for both. By school excursion is meant an expedition of one or more days into the country. The teachers, in accompanying the pupils, give such explanations of what is seen as to constitute object lessons. This is at once a pleasant change, and a useful means of education. But it is generally considered far more beneficient and useful to select a certain number of sickly and debilitated children and to send them for several weeks to some bracing country place where their health may be thoroughly restored. This is called a school colony, and constitutes a great and happy feature of the educational machinery. Thus, for instance, the Montmartre School Fund has purchased a magnificent mansion and its surrounding park at Luzancy, not many miles from Paris. There four batches of 186 children spend several joyful weeks during the course of the summer, living nearly all the time in the open air. The school fund of the neighbouring district, the XVII. Arrondissement, sent last year 137 children to the seaside at Fécamp and 281 to the country at Montlhéry, making in all 418 children who spent a total of 8,500 days right away from the big town, enjoying wholesome recreation in the fields or on the seashore. What this means in health and happiness to these poor children cannot be expressed by mere statistics; it is best left to the imagination. To help to defray the cost of these school colonies the municipality has voted an annual subvention of £8,020 divided between the 20 school funds of the 20 Paris districts, or *arrondissements*, in proportion to the number of poor in each locality.

As a rule, each school fund has three committees — one for the school canteens, one for the provision of shoes and clothing, and the third attends to the holiday excursions and holiday colonies. The general committee from which these sub-committees are chosen generally consists of the mayor, the members of the municipal council, and the government school inspector of the district. Then the voluntary subscribers to the fund elect out of their own ranks and by a ballot vote probably 20 or 24 committee men. Thus the local authority and the local subscribers are both represented and share in common the task and responsibility involved. Early in the day it was found expedient to obtain the assistance of ladies. At first many of them were connected with church charities and were called lady patronesses. But this did not work at all. No one wanted to be patronised, and the main object of education as at present organised being to inculcate the sense of the duties and of the dignity of the citizen any idea of charity is absolutely antagonistic to the whole spirit of modern educational reform. The lady patronesses were no longer allowed to interfere, and in their stead lady delegates were appointed. Their mission is not to patronise, but to see that the rules are applied and that everyone obtains his rights. These ladies have a card bearing the stamp and signature of the mayor, and also sometimes wear a ribbon favour of the colours of the town. The lady delegates to the canteens must visit the schools under their charge at least once a week. They inscribe the accounts on the printed formulas, and see that all is absolutely clean and that the meals are well prepared. In this respect the ladies have rendered great service, for it

is due to their special knowledge and skill that the cost of the meals has been considerably reduced.

It was in May, 1877, that the Prefect of the Seine informed the various school funds of Paris that the municipal council had determined to study how a good, wholesome, warm meal might be given to all the children once a day. The answers at first obtained were not encouraging. The school funds had not the means either in regard to management or in regard to their financial resources to attempt so vast an enterprise. It was also estimated that such meals would cost on an average 25 centimes (2½*d.*) each. For the moment the matter dropped. But in February, 1881, the question was raised whether all the children who were attending school, and whose parents were in receipt of poor relief, might not be given a meal while at school. The school fund of the Montmartre district at once volunteered to undertake this service. Other districts followed the example. The municipality voted funds in aid, and a report presented for the year 1884–85 showed that during the year 15 canteens had served 1,110,827 portions; one-third of these were helpings of soup, another third meat, and the rest vegetables. The children had paid 36,776 francs 90 centimes for 736,526 of these helpings; while 374,301 helpings had been given without payment. The total cost was 59,264 francs 95 centimes. The portion of meat then given weighed from 15 to 20 grammes, and cost the school funds 0·0578 franc. But soon, and with better organised surveillance and management, the portion was increased to 20 or 25 grammes, and the cost was lowered to 0·045 franc.

The system of feeding the children was thus fairly launched. It has now become universal, and experience has taught that the cost need not be more than 15 centimes or 1½*d.* per meal of soup, meat, and vegetable. The latter naturally is a separate course, a substantial dish, properly cooked, not a little greenstuff boiled in water as we too often see in England. The principle now adopted is to encourage all the children, whether poor or not, to eat their meals together. A child may bring his own food with him from home, but it is never so cheap, and is always cold and rarely so good as the meal provided by the canteen. Therefore both children and parents prefer the canteen dinner, but the children who are not content with water bring their own wine or beer in bottles. Even the poorest children generally manage to mix a little wine with their water, particularly now that recent legislation in favour of hygienic drinks has reduced the retail cost of wine to 2*d.* per bottle, and even less. From the very first the greatest care has been taken not to allow any loss of dignity to arise from the free feeding. The fundamental principle of the whole management is the absolute innocence of the children. They cannot be expected to pay. Their parents may be at fault; if so, there is only the greater reason to shelter the children and to try to preserve in them that sense of self-respect which might so easily be wrecked by their parents' bad conduct. Each child is called upon to pay 1½*d.* per day for his meal, and receives in exchange a check or ticket. Sometimes this payment is effected in a small office, one child entering at a time. All receive a ticket for their dinner, and only the person who gives the ticket knows who have paid and who have not. The parents of those who do not pay are visited. A full inquiry is made as to their condition, and if they are poor they are put on the free list.

Of course it is easy to see that such a system might lead to much abuse. If the father is at work and has only one or two children the gratuity is refused. It is never refused to widows or workers with large families. To this I objected that the father, though earning high wages, might squander them in dissipation and starve his family. Was it not encouraging vice to feed the children? Or, again, others were clever in shamming poverty, and to feed their children encouraged their hypocrisy and their lying

propensities. All these and many other objections were met with the one simple, all dominating reply: "The children must be fed." There were methods of investigation; pressure was brought to bear on the parents. The parents or guardians of every child fed gratuitously were called upon and full investigations were made. Friends and witnesses and their employers were also seen when necessary. There was no objection to the show of some severity towards unworthy parents, but the child was held sacred. In no case was the child to be humiliated or troubled in any way, and on no pretext whatsoever should the food he needed be refused. Besides, there were various categories of gratuity. Persons who could not afford the 1½*d.* saved their dignity by paying a 1*d.* or only a ½*d.* per day. Nevertheless, in the poor quarters it is, in the majority of cases, of no use insisting on payment. The children arrive at 8.30 a.m. However poor their parents they generally have had something to eat before starting. Nevertheless there are some extreme cases of poverty, and then a piece of bread is given at the school when the starving child arrives. But this is altogether exceptional. It is at 11.30 a.m. that the mid-day warm meal is given. The children leave school at 4 p.m., and then they are supposed to dine with their parents in the evening. But to many of them it is the mid-day French breakfast that they get at school which constitutes their only satisfactory meal. A few children, however, cannot go home at 4 p.m. as their parents are out working. These are allowed to remain on the school premises till 7 p.m., where they play and prepare their lessons. Then they are given what is called a *goûté*, a sort of "snack," a little bread and butter or jam. Such is the full scope of the feeding undertaken by the school funds, though all that is outside the 15 centimes midday meal is exceptional. How far the feeding is gratuitous varies according to the district. At the Eppinette district only 20 per cent. of the children pay for their meals. At Batignolles the proportion is 40 per cent., and in the wealthiest quarters of Paris as many as from 60 to 70 per cent. of the school children pay for their midday repast. The school funds, in so far as they depend on voluntary contributions, could not feed all these children, and during the last three years the Paris municipal council has given to the various school funds of the capital subventions amounting to £40,000.

Such is the general principle on which the system works. Each locality manages its own affairs, and is assisted by subventions from the centre, and there is emulation between the various funds. It is now only necessary to add a few words as to the canteens themselves. They are object lessons in cleanliness and in simple but refined cooking. The meat is weighed after it has been cooked, the bone and fat being removed; then the younger children get 20 grammes and the older children 30 grammes of cooked meat. The *ménu* is, generally speaking, somewhat as follows. Three days a week there is *bouillon gras*, a delicacy unknown in England, as no ordinary English person will take the trouble to put the proper proportion of flavouring herbs and vegetables to the beef. Only twice a week is the boiled beef with which the soup has been made given for the second course. As this meat is lighter than roast meat care is taken to supply for the third course the most substantial vegetables — namely, lentils or haricot beans. What a difference it would make if in England the people knew how to cook these highly nutritious vegetables. At one of the canteens I watched and inquired as to the process. First some onions are fried in good grease, in preference the melted fat of pork or veal. Then some thyme and some laurel leaves are added, with "just a suspicion" of garlic. The haricot beans or lentils that have been soaking in water all night are placed over this savoury sauce. Its fat counteracts their dryness, and the aroma of the herbs, onions, and garlic confers an appetising flavour. On three days a

week roast beef, pork, veal, or mutton is given, preceded by a tasty vegetable soup and followed by a dish of mashed potatoes, or of macaroni cheese, or of rice and milk, all well flavoured, well cooked, and of excellent quality. Such is the three-halfpenny meal of three courses provided alike to the poor and the well-to-do children attending the primary schools of Paris. But this is not all. The medical officers who examine the children may prescribe larger portions where necessary, and quite a number of weakly children have cod-liver oil given to them in winter and syrup of iodide of iron or phosphate of lime in summer.

If the cooking is refined some attempt is also made to refine the manners of the children. So as not to dirty their clothes they are taught to use serviettes, and, generally speaking, the masters or mistresses pay their 1½*d.* and take their midday meal with the children, eating exactly the same thing. This example gives confidence and does much good. It is also a very effective way of controlling the cooking. Thus we have the hopeful spectacle of what in England would be pauper children sitting side by side with other children who are in much better circumstances, and eating simple but refined food at the same table as gentlemen or lady teachers who have won their university degrees. Then, so that the poorer children should not be looked down upon, care is taken not only to conceal the fact that they are unable to pay for the meal, but out of the school fund simple articles of clothing are given them. These poor children do not, therefore, look shabby, and thus their self-respect is maintained. Is there not in all this the making of a healthy people and a strong race? Can we in England afford to ignore the example here given? Is it not safe to argue, as the managers of the school funds in Paris argue, that whatever the faults of the parents, whatever may be done to the parents, still the children are blameless? Therefore, and without hesitation, if we would preserve the race, without the loss of a moment and without making a single exception, every hungry child must be fed. Economists, politicians, and others were left to discuss and to squabble over the rights and wrongs of the case, the school funds of Paris, encouraged by the municipality, commenced by building the kitchens, cooking the meals, and somehow or other things fell into their places, and to-day everyone is quite content and some not a little proud of the good that had been done.

DEAL, during the latter part of the holiday season, was much interested in the remarkable swimming of a septuagenarian lady visitor from Southampton.

Although the lady is 72 years old, she is an expert swimmer, and daily for weeks she could be seen enjoying a swim in deep water. Every morning, about ten o'clock, she was rowed out by a boatman, and on arriving at a suitable spot she dived from the boat, and swam about for the space of from 40 minutes to an hour. In the water she performed many interesting feats which would do credit to a powerful young man. One of these was to hold straight up in the air two oars whilst floating. She is also a capable oarswoman, and long practice has enabled her to manipulate the oars with the dexterity of an old "salt."

A DARLASTON BULL TERRIER.

Physique in the Black Country.

DARLASTON AND WILLENHALL.

By ERNEST RICHARDS.

II.

THE mention of Darlaston or Willenhall in a neighbouring town is sure to create a smile, though the original cause for the expression of humour is lost in obscurity, or at least clouded by tradition, though the present writer, who possesses a very intimate acquaintance with the neighbourhood, unhesitatingly traces the more recent cause for these rippling expressions of a pitiable cynicism—which followed audible mention of either Darlaston or Willenhall by their neighbours—to the peculiar characteristics engendered and developed in the inhabitants of those two towns by reason of their special callings, and a more or less willing isolation from the spheres of life outside their own parish. These strongly marked traits of character are in no small degree developed by the struggle against adverse conditions during the period of enforced change in local industries, when the mine, forge, furnace and gun lock manufacture was replaced by the ever-increasing bolt and nut factory, and the further developments in the manufacture of locks, keys and kindred articles. A struggle which has been eminently successful, but which, during its progress, rendered iron men still more tough, and born pugilists still more pugnacious.

Especially were these latter traits of pugilism and sport characteristic of Darlaston until the dispositions were locally cartooned by the bull terrier—a canine specie they so much loved that he was commonly described in the vernacular of the district as a "Darlison mon"; whilst the gamecock, to quote an inhabitant, supplied them with "the finest sport in the world," together with a synonym with which to describe their champion warriors, who were variously described as a "geme chicken," "geme un," or "geme bird."

Willenhall undoubtedly ran it a good second, and could at one time produce its cock-fighting parson, and in both towns, even to-day, though machinery has to a great extent supplanted hand labour and education has pruned the inhabitants to a more perfect type, yet the hard-headed pugilistic tendencies of their forefathers have been in no small degree inherited by the present generation, and the sterling marked individuality of past generations is by no means extinct.

I *do not* mean to infer that the inhabitants of these towns only exercise their fighting blood in the art of self-defence, or in aggressive physical warfare, but I do certainly

emphasise that a good stand-up fight was very dear to the citizens referred to (and indeed in a more or less degree to most Black Country men), and among the artisans there were, physically speaking, more active than passive resisters. But among the employers of labour this spirit of aggressive warfare was carried into their commercial enterprises with no little success.

As I have before inferred, long before the bolt and nut trade became the staple industry of Darlaston, mining and smelting was very extensively carried on; and even bolts and nuts have not wholly eradicated the former from the parish boundaries, though I must confine myself in this article to the present staple industry.

The introduction of the manufacture of bolts and nuts into the town was preceded by the making of gun locks, a trade which flourished coincidently with the blast furnaces, but the soldier and hunter are now but slightly dependent on the men of Darlaston for their weapons, and many of the old locksmithing and filing shops were gradually converted into oliver shops or bolt and nut smithies.

The number of bolts and nuts now manufactured is enormous, for almost every vehicle in the world is fastened with bolts and nuts, from the baby carriage to the Pullman car, from the tiniest motor to the greatest locomotive, from the smallest steam launch to the mightiest ironclad. Also, on bolts and nuts the smallest span is alike dependent with the mightiest bridge, and the simplest machine with the most complex product of the engineer. And just in proportion as mechanical inventions and machinery and the adoption of iron and steel structures have multiplied, so the demand for bolts and nuts has increased.

It has already been suggested in this article that small locksmiths' shops were sometimes converted into bolt and nut smithies, but in the early portion of the second half of the last century many of these converted enterprises emerged from obscure back premises into a frontage on the main street and rapidly developed into established factories, employing from a hundred to five hundred hands, in the meantime adding steam motive power for the purpose of driving the screwing or threading lathes, though machinery for making nuts and bolts was still but a minor factor as compared to the almost universal use of the oliver or manual forge, which is depicted in the two illustrations.

Until within recent years the man power at the oliver had, in every instance, the assistance of an additional human factor who pulled the bellows in order to keep the furnaces, which is seen in the background of the illustration, in such a state as to properly heat the iron, and the boy further assisted by putting his weight on the treadle of the oliver as his gaffer forged his bolt or nut. This onerous work was frequently accomplished by lads of nine to fourteen, and pulling the bellows—a most slavish task—was described locally by the very apt phrase of "pulling the string of misery." Nowadays, thanks to mechanical ingenuity, it is largely superseded by steam-created blast, and the tendency of the times is in the direction of disposing entirely of nut and bolt forges in favour of machinery, except for a small portion of "odd work," which is likely to require the skilled craftsman till the millennium dawns.

Notwithstanding this tendency to dispense with the bolt forger, he is still a factor of the population—though he is but a lingering remnant of a picturesque, rugged and glorified figure which, thirty years ago, could rise at five a.m., forge three gross of 3-in. by ¾-in. hexagon bolts, or three gross of ¾-in. nuts, drink a gallon of old ale, attend a dog or cock fight and club supper, and strip to defend himself in a pitched battle before midnight of the same day—especially was this true near Darlaston wake. It may be interesting to note that at that period it was a common incident for a wearer of the leather apond (apron) to go from the supper

room of the "Bush" or "Fox" Inn to the area in front of these taverns, throw off his jacket and challenge the house, in loud tones, through the open window. It is also interesting to note that the leather apron, as an article of apparel, was rarely dispensed with until the forger indulged in a complete change of outer garments, for the wearers of this badge of honest labour were afraid of catching cold if they inadvertently dispensed with it whilst still in worker's attire, even for an hour.

Thus, among all the artisans to be seen in the streets of the town a quarter of a century since, the bolt and nut forger, rarely minus his apron, except on Sunday, was by far the most important, numerous and conspicuous, and in the local inns he was the largest factor among the visitors, as he boasted of forging big nuts or bolts. Even to-day a small fraction of the lingering remnant retain all the prominent characteristics of past generations,

Photo., H. Taylor, Pleck.]

NUT FORGER AT WORK.

whilst the actual work of the oliver man remains practically unchanged, though it is being washed away before the advancing tide of machinery. In the meantime a brief

Photo., H. Taylor, Pleck.)

BOLT FORGER AT WORK.

outline of the process of making bolts and nuts may be interesting.

Two classes of bolts are forged on the oliver. The swaged and bunted.

For the former a man takes a piece of round iron and heats it, then, under one of the hammers which holds the complement of his die, he swages or reduces it in a tool—the hammers are worked by foot treadles. Having reduced it to the required diameter by thus swaging, he cuts it off the required length, then places it in a bore and forges the head by means of the other hammer, which has a suitable tool in it. During the whole process he touches it up with his hand hammer as required.

In making a bunted bolt a man does not reduce the iron by swaging, for it is rolled the required thickness at a forge mill, and then cut off the required length in the shears of the bolt and nut factory. The forger heats the end of the "pin" and bunts the

head on under the two hammers of his oliver.

A nut forger cuts off a piece of iron from a hot flat bar at the heated end, and then, with hand and treadle hammer, and by the aid of suitable dies and a punch, he fashions a nut with a rapidity and skill only born of long practice. Thus, in brief, is the bolt and nut forged.

The process of making bolts and nuts by machinery, as shown respectively in the photo (taken with others by courteous permission of Messrs. Charles Richards & Sons), so nearly approaches the automatic that a description of the process, which almost instantly takes place in the machine, is more suitable for the pages of a technical magazine than for our favourite SANDOW. It will be sufficient in this article to state that the bolts and nuts are cut off the bar at such a rate, as compared to hand forging, that the reader could only arrive at a just comprehension of the superiority of the machine, with regard to output, by seeing the two processes himself in person, but he may glean a notion by comparing the product of a bolt and nut forger's day's work, as stated in a previous paragraph, viz., three gross of ¾-in. bolts or three gross of ¾-in. nuts, with the product of a machine man, who can easily make twelve or even twenty gross per day of a similar class of bolts and thirty-five gross of a similar class of nuts.

Photo., by special permission of Messrs. Chas. Richards & Sons.

MODERN BOLT MACHINE AT WORK.

This eloquent testimony of output on the part of the machine, acting on a natural conservatism, inspires the bolt and nut forger with a distinct aversion to it, an attitude which a strong prejudice induces the forger to maintain with regard to the machinist also. Nor does the machine man profess a platonic love for the hand forger, and there is, therefore, no love lost between the Jews and Samaritans—though I leave the exact application of the figure in this particular case to a man who has less respect for his outline than the author. For, dissimilar as are both sections in most respects, they both legitimately claim a fine physique.

The bolt and nut forger is a slightly stooping figure, bearing in his walk traces of the constant treadling, but carrying his gnarled, muscular arms and horny hands as if he were ready at any moment to grasp the hammer and tongs. The machine man, on the other hand, stands practically straight at his work, and is more erect in his bearing. The work of the latter chiefly develops the muscles of his arms, but he is too modern an innovation to have solidified into a type.

When the bolts and nuts are once forged, either by hand or machine, they pass on to a shop which for years has been the domain of the fair sex, and which, for a score of years at least, has been almost solely occupied by steam driven machinery, and therefore has known none of the Jew and Samaritan spirit engendered among the males by the hand *versus* machine controversy. I refer to the screwing shops, where the thread is worked on the bolts and nuts.

The girls, which the illustration so well

depicts in the act of screwing bolts and nuts, are of a Spartan type, and yet in a large number of instances they are very comely featured. In later times they are a little less picturesque than in former days, for they have exchanged the pocket bonnet and shawl for a style of dress which is literally but slightly behind the latest fashion. Their education and demeanour is a decided improvement on former days, but neither then nor now were the majority of them anything but self-respecting girls and women. Though hardly boasting of Bond Street gowns or Park Lane manners, still their good health may easily be the envy of many ladies who boast an aristocratic residence—whilst many ailments, common in society, are absolutely unknown among them.

From the screwing shop the bolts and nuts pass to the warehouse, and are then packed and despatched to the very ends of the earth.

Photo., H. Taylor, Pleck.]

AN OLD WILLENHALL LOCK FILER.

WILLENHALL.

What strikes the visitor to the Black Country is the similarity of the people in neighbouring towns; what strikes the inhabitant is the dissimilarity which exists in towns situate near together, and though

Photo., H. Taylor, Pleck.]

GIRLS AT BOLT SCREWING LATHES.

Darlaston and Willenhall, or Will-nul, men have certain traits in common, yet they have many points of difference, especially in a physical sense. These physical differences are the result of different callings, and their respective virtues are sometimes tested in human combat—the wake times being specially favourite festivals for these contests.

In Willenhall a variety of trades flourish, but the backbone of its industry is found in the time-honoured manufacture of rimlocks, padlocks, mortice locks, and all kinds of keys and door bolts, and all other trades may be considered in relation to the lock and bolt trade as the ribs are to the vertebræ.

Stamping, various kinds of light forging, malleable iron castings, and the manufacture of iron toys, currycombs, and even latterly rat traps, all help to find employment for the population, but beyond the lock industry I shall have space only to refer to the manu-

facture of currycombs, which is decidedly the second trade of importance in Willenhall.

The Willenhall lock trade is respectably ancient, if not indeed absolutely antique, and is pursued to-day by a few old locksmiths exactly in the manner adopted by their great-grandfathers, whose Sunday white aprons adorned Will-null Church in the good old times of the Georges, or even before that date. The illustrations of an old lock filer reproduces a shop which has been a busy hive of lock industry for more than a century, and shows one of Willenhall's worthies filing a rimlock case in a manner which has been handed down for several generations. In the particular case presented by the illustration the business has been the property of the family for more than a century.

The old fashioned way of manufacturing a lock, still pursued by a few ancients, is to cut off a plate from a sheet of iron by means of hand shears. The plate is then marked in such a manner as to indicate each separate hole. Some of these holes are punched in at the vice, and the others pressed in by means of a small hand press. The plate is again bent in the vice and its face levelled on the anvil. By this time the forger has the sheet, bolt and springs ready, and these are filed and fitted in; then follows the bridge with wards in to fit the key. The rims are then riveted and fastened to the back of the plate. A cover is now cut off at the hand shears, and with holes worked in, similar to the plate, is fitted on its bearings inside the lock. In every operation the various parts are filed and "smoothed" so as to ensure an accurate fit. After the lock has been once completed it is taken to pieces again and its various parts polished and japanned. The lock is then once more fitted together and is now ready for the cottage, mansion, or castle, for the deal or oak door, or arched gate of a palatial residence.

To this intricate trade boys were early apprenticed, and grew up to bench, anvil and press from the dawn of youth to mature age with but little variation in their life, except, perhaps, a walk to Wolverhampton with their lock-filled wallet for the purpose of selling their wares, and an occasional feast at the wake. The product of this continual stooping at benches (which were rarely raised to suit their increasing height during the growing period) from immature youth through a long life of arduous toil, was—if in a less degree is to-day—a stooping, stunted, undeveloped, round-shouldered race of artisans, who only saved their narrow chests from absolute decay by the swinging motion of their arms as they filed.

In Willenhall, as in other Black Country towns, the old is fast giving place to the new, and the majority of the parts of locks and door fastenings are now made by machinery, and simply put together by hand—this system being called the new process. And it is only correct to add also that a large number of locks are manufactured by a blending of the older and newer processes—a process which may be considered a compromise between two extremes.

It was one of the features of the lock trade that each man should practically complete his lock, and one of the boasts of the old lock-filer, actually depicted in illustration, and indeed all such men, is that they could accomplish this desideratum as easy as rolling off a log. It is indeed admitted by the remnant of old locksmiths still in the flesh that any other method of procedure, such as each man making a separate part, would prove an economically impossible task—they could not supply these parts quick enough as artisans to comply with the demands of the modern employer. Nor are they willing to forsake the superior intellectual and handcraftsmanship required in making the whole in favour of "automatic" part-producing, except under the most absolute and stern necessity, and the old locksmith regards with pitying contempt the modern product of his trade in the shape of a part-maker, a term I have manufactured for literary convenience.

But still, notwithstanding the prejudice of the older men, the new process has come to

stay, adding improvement year by year, until the present system will have evolved, in a few years beyond recognition of the reader who gleans his information from these pages.

The reader is already familiar with the patient labour of handcraft, and he will therefore be interested to learn that the machine presses the plate and stamps all the holes in the plate at once in much less time than it takes to state the simple fact. In the meantime the men at stamps and forges are busy preparing the various bolts and springs, and when machinery, combined with a certain amount of specialised hand labour, has produced the parts, the whole is put together by the constructive artisans, clearly defined in the illustration of a modern lever-lock shop, where each man is performing a distinctive operation in the building of the

Photo., H. Taylor, Pleck.]

THE NEW LOCK-MAKING PROCESS BY MACHINERY.

lock. If the illustrations of the modern method are carefully noted, many of the parts of the lock will be seen.

The present method of making locks, the improved sanitary arrangements of factories, and the shortened hours, has

Photo., H. Taylor, Pleck.]

A TYPICAL WILLENHALL LOCKMAKER'S SHOP, OVER A CENTURY OLD.

modified abnormal spinal developments in the younger men, but still the stoop is much more common in Willenhall than in any of the neighbouring towns, whilst the older lock men bear unmistakable evidence of a form of spinal curvature, for our illustration of an old-time lock-filer shows an exceptionally fine man for his class.

It would be the essence of bad taste and folly for the writer to merely draw invidious comparisons; my object is really to lead the reader to clearly apprehend that the men are physically and mentally, in many respects, the product of their particular calling and environment, though the Willenhall locksmith and filer has been the object of many facetious remarks on the part of their neighbours. One story is current in the district which records that a certain Willenhall inn, which is known to local fame by the significant

appellation of the "Hole in the Wall," has a series of holes or recesses conveniently situated in the bar parlour in which the "old timers" rest their "round shoulders," and some narrators affirm that the recesses were actually worn in the wall by the continual pressure of the "hump." In all fairness the writer is bound to confess that his efforts to discover that inn proved futile.

Physically deformed, as compared to a good standard, the locksmiths and boltmakers of Willenhall have yet scattered their wares with the four winds of heaven, and no country in the world has escaped their ingenious enterprise, and even physically there is a growing improvement, until by-and-bye, the hole-in-the-wall type will be as extinct as the dodo.

The majority of those who followed the exploits and fortunes of the artillery, cavalry, yeomanry, scouts, and mounted infantry, or discussed the much-vexed question of remounts during the Boer war, did not know that the horses, from the most virile welsher to the highly intelligent trained charger, described in cavalry drill books, was dependent for his grooming on a Willenhall currycomb. Once the Government went to America for locks, but it gladly returned to Willenhall, and once it went to Germany for currycombs, but it soon retraced its steps to Will-null. Many a Willenhall boy has seen a currycomb made at home, and in later years has groomed his tired steed with it on the borders of an Australian gum forest or on a prairie farm in Manitoba. The Willenhall currycomb is like the lock, it is ubiquitous—it is everywhere.

The process of manufacturing currycombs, like locks, is evolutionary, and though many still adhere to the old forged type in part or in whole, yet the firms which spell continued success are constantly adopting the most approved methods and the most up-to-date machinery, and by the courtesy of Messrs. W. H. Tildesly, large Government contractors, who supplied the South African troops with large numbers, I was enabled to see a most up-to-date plant, and to secure the two photographs which give a splendid idea of a stamping shop and a finishing shop for the manufacture of currycombs and kindred ironwork.

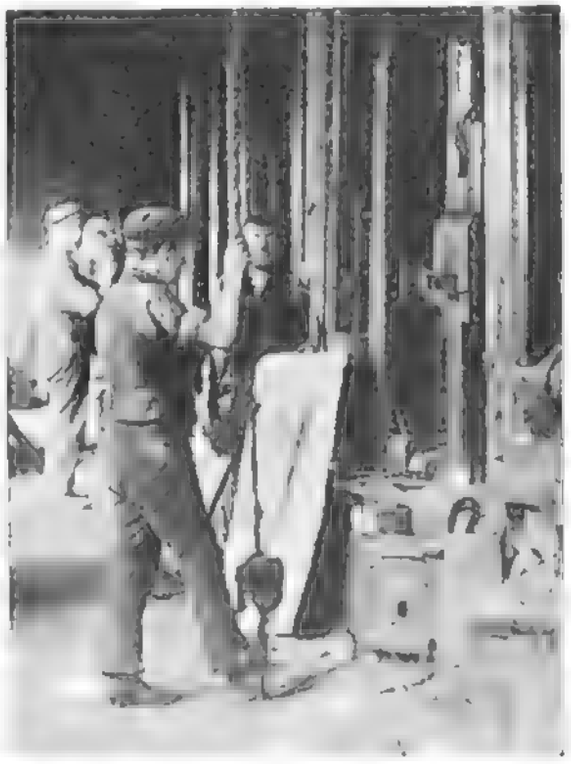


Photo., H. Taylor, Pleck.]
"THE KICKERS" STAMPING CURRYCOMBS.

Lack of space and fear of tiring the reader prevent me from going into details with regard to the manufacture of the currycomb, especially as the firm to whom I am indebted for most of my information have reduced it to a fine art. Suffice it to say, then, that in the new process the flutes are stamped by the herculean men seen in the first photo. The various holes are then pressed in by the girls at the punches and presses, and men rivet on the handles. The finished currycombs are japanned or blacked in an oven—much warmer than purgatory—and then packed ready for transport to a Newmarket jockey or a pampas cow puncher, as the case may be.

The stamping men, "kickers," are undoubtedly, as a class, the strongest men engaged in either the Darlaston or Willenhall staple trades, but having already transgressed

the limits of space, I will simply add that all classes of artisans in both towns are noted for love of sport, a love of beef and broth, a love of gardening, an intense pugilistic loyalty to the place of their birth, and unbounded patriotism to their native county, which has been instrumental in supplying some of the finest recruits to the well known fighting regiments of the line, the 38th and 80th South Stafford, whose colours are riddled with shot, and whose honours are more numerous than any other line regiment with but two exceptions.

A MODERN WILLENHALL LOCK SHOP.
(Fitting the parts.)

Overstrain.

By an M.D.

IT has been said that were the mysteries of the universe an open book capable of being read by all, the mind of man would quickly subside to the level of that of the brute creation. Had we no problems to solve, no natural forces to understand, harness and make use of, no knowledge to pursue, then no effort of thought would be necessary, the brain therefore would become degenerate. New topics of conversation, new difficulties to overcome in the pursuit of knowledge, need effort or strain on the part of the mental faculties, and without strain there can be no advance, no development. New ideas, fresh problems for solution, alone give a height of pleasure to the trained mind and takes it another step in the direction of perfection. By strain we shall understand not an excessive or inordinate dangerous effort but a healthy laborious endeavour to surmount a difficulty. Work, not overwork, is the natural demand of a healthy brain. In a similar manner muscles cannot be improved in quality or brought to a perfect state of culture without strain or effort of a greater or lesser degree. Overstrain of a muscle often means overstretching or even tearing of fibres which form it. Again, the use of numerous muscles of the body in sudden and excessive violence so reacts upon the heart and circulation that the circulatory system is overstrained. The brain is the seat of the will, and the will guides thought through the intricacies of its own substance, controlling the often tempestuous rush of ideas into calm and decided reasoning, directing the succession of thoughts into their proper channels. The brain also controls the actions of all the voluntary muscles of the body. It will therefore be readily understood that any tendency to mental or physical overstrain is under the control of the subject. Much of the damage done to mind and body by overstrain is produced by self-imposed acts of the sufferer himself. Man is endowed with freedom of will to act for good or evil in his own environment, he also may by his own actions, born of free-will, injure or preserve his own health. Overstrain springs from causes which are generally under the control of the individual's will-power, and this overstrain, as has been indicated, may be induced by over-action of the muscles which are untrained and of the untrained or badly trained mind. Overstrain of the brain produces physical weakness, whilst physical overstrain reacts injuriously upon the mental faculties. The possessor of a well-trained mind has great powers of self-control, and is therefore better able to resist the mischievous influences likely to induce overstrain.

The highest on the list of civilised nations is the community whose individuals have the greatest self-control. Self-restraint is the hall mark of an evenly balanced mind. Unbridled, unrestrained passion is a danger to the individual himself who possesses this weakness, as well as to those who are associated with him. A high vitality can only be maintained by preserving vital powers. Those who by uncontrolled passions and habits put out from time to time all effort in their power "to the very last ounce," as it is frequently termed, overstrain themselves mentally and physically—they draw upon their reserve bodily force, and their vitality is lowered. Inroads on vitality are made in numerous ways. The

man who lets himself fall into a hurricane of passion recks little of the physical and mental damage that is being done to his organism. Did he but know that the pallor of anger (white with passion) was nothing more than a momentary contraction of the superficial blood vessels throwing overstrain upon the heart and thus causing a fleeting pause in its beat, he would think twice before repeating his exhibition of violence. Did he also know that the red flush of anger was nothing more or less than paralysis of the superficial blood vessels, he would not so frequently give way to fits of temper. How often, indeed, has a fit of temper induced a fatal fit of apoplexy. So great is the overstrain, and so weak the resistance of the blood vessels of the brain in persons advancing towards the autumn of life, that it is no uncommon occurrence for a blood vessel of the brain to give way or rupture during the violence of anger. If this disastrous and undesirable result does not obtain, there is produced a tendency in that direction, for arteries, as age advances, lose much of their elasticity or recoil, they do not yield and recover themselves to each impulse of the heart as readily as similar blood vessels in youth; they are thus weakened and often become so diseased that they bulge or dilate and are brought dangerously near to the bursting point.

A current common phrase in many rural parts of England is that "a gentleman bears pressure," which means, or is used in the sense, that a gentleman of refinement and culture is not readily "put out," he is not irritated or thrown into uncontrollable passion by causes which would in less cultured minds produce a demonstration of anger. To be self-controlled, even-tempered, takes us a long way up the social ladder as well as the heights of happiness and health. To perform superb feats in any branch of athletics, a preparatory training or culture of muscle is necessary, and with this muscle culture the heart and circulation are brought gradually into an adaptable state for the performance of the desired task.

It is in the experience of all of us that any unusual exercise suddenly undertaken without previous training makes an increased demand on the action of the heart. We are made conscious of effort by the throbbing of pulses and the tumultuous beating of the heart. In the young and vigorous the heart is extremely adaptable to the variations of physical effort, but this adaptability is not so much in evidence at middle age and during declining years. The city man who is "out of condition," possessing as he often does uncultured muscles and an untrained heart, suddenly undertakes to make a rush to catch his train. By such a sudden effort the heart becomes engorged, the overworked organ is overstrained, the circulation is impaired, and the whole muscular system seems bereft of the power to accomplish what is demanded. During a subsequent rest the audible heart's beat and throbbing of pulses subside and a reactionary depression ensues. It may be that the heart recovers from one or two experiences of overstrain of this nature, but it must be recognised that some hearts have greater recuperative powers than others. The constant repetition of overstrain acting definitely yet possibly almost imperceptibly—hence unregarded—acts in so refined a manner upon the heart that the extent of damage done to the organ cannot perhaps at first be detected or gauged. Besides sudden and excessive demands upon the muscular system, the pursuit of labour for too many hours in the day without proper intervals of rest induces a condition of overwork which is but another term for overstrain. For the well-being of the body, wear and tear of the structures of the body must be balanced by repair, and working hours must be balanced by a certain number of hours of rest. Rest is necessary for complete repair, the body must have time to recruit, for it is not constructed to meet expenditure of force unless the materials for that force are constantly replaced. It is true, however, that we can to a certain extent draw upon reserve materials in the organism itself for the supply of force, but the drawing from this source in time

produces a bankruptcy of energy, and the nearer this bankruptcy is approached the greater the overstrain. The effect of passions other than anger which has been mentioned, is to draw unduly upon the bodily store of force, and the amount of force lost on occasion can never be regained. The sudden display of boisterous joy or excessive hilarious mirth is frequently as malign in its influence on the organism as is uncontrollable anger. Have we not all heard often enough in appreciation of some stage representation of a farcical comedy the expression "I nearly died of laughter"? Many persons suffering from diseased arteries of the brain have precipitated their end in a fit of apoplexy caused by hearty laughter.

Any external impression exerts a corresponding impulse on the circulatory and nervous systems. Extremes of grief and sorrow, hope and joy, suddenly asserting their influence cause overstrain of the heart or brain. So disastrous has been the effect of an external impression in one or two rare instances that immediate death has taken place through rupture of the heart. A Spanish king on hearing of the defeat of his army died in this manner. So great was Queen Mary's grief at the loss of Calais that she said that the name of the town would be found written on her heart. Had a doctor, equipped with present-day knowledge of medical science, examined the Queen's heart after death, he, no doubt, would have found Calais written there, not of course in so many letters forming the word, but in the evidences of organic changes found in the organ which would show their origin to have occurred about the date of the Queen's great grief. In many persons there is an hereditary proclivity to external impressions, and this sensitive, uncontrollable tendency frequently jeopardises the life of its possessor. A slight disappointment suffices in a hysterical girl to precipitate her into a fit of hysterics. In some cases constantly recurring impressions act more gradually, yet none the less certain, in the procuration of overstrain. There are a hundred and one influences that may at one time or another so upset the even balance of the brain and circulatory action as to pervert and well nigh destroy its function. Very trifling causes indeed will render natural processes and actions unhealthy and irregular in those persons who register external phenomena with great and highly sensitive readiness, but extremely potent causes are often at work in these subjects. How great then must the resulting physical and mental damage be in such cases. The production of a disease, Chorea or St. Vitus's Dance, is only too common in growing girls and boys who are forced to submit to high-pressure instruction in our public elementary schools. Not only is growth making demands on the organism of youth, but a more complicated and delicate process, called development, also takes place, which draws upon the bodily forces. Whilst these processes, growth and development, are proceeding, mental overwork urged on by overpressure induces nervous overstrain, which is evidenced by various symptons of ill-health or marked by distinct and characteristic diseases.

Well-cultured muscles and a well-cultivated and evenly-balanced mind are the necessary armaments for the avoidance of overstrain, mental and physical. Prolonged overwork of the brain or muscles, together with excessive and sudden exhibitions of mental or physical force, must be shunned. Periods of rest and work must be duly balanced and regulated, or the contest of wear and repair becomes unequal. To know that any excessive or inordinate display of the emotions and passions beyond the bounds of reason is nothing more nor less than disease suffices to indicate that for the avoidance of overstrain the faculties which manifest these unruly weaknesses must be held under subjection, and to attain this desirable end, as has been said, it is necessary to be well cultured mentally and physically.

The British Football Team in New Zealand.

By F. A. HORNIBROOK, (*Christchurch, N.Z.*)

DURING the month of July the one prevailing topic in athletic circles throughout this colony was the expected arrival of the British team of footballers who had toured Australia; and after a victorious career there—in which they had defeated New South Wales twice, Queensland twice, and Australia three times, as well as winning several other matches of minor importance—were coming to New Zealand to test their metal against the New Zealand footballers.

Last year the New Zealanders who toured Australia beat the Australians in an even more decisive manner than the British team had done; consequently, the speculations as to whether Britain or New Zealand would win were numerous and excited.

The British team, which included picked representatives of England, Scotland, Ireland, and Wales, was captained by Mr. Bedell-Sivright—the well-known Scotch International forward. The first match was played against Canterbury on August 6th, at Lancaster Park, Christchurch, in the presence of 15,000 spectators. For the whole of the week before, Canterbury was visited by one of the heaviest snowfalls that it had had for some years. The snow had stopped falling only three days before the match, and although every effort had been made to clear the ground, yet it was fearfully soft and slushy—

BRITISH TEAM *v.* NEW ZEALAND.
(Britain hard pressed.)

a fact which rendered a scientific exhibition impossible.

The salvo of cheers which greeted the British on their first appearance on a New Zealand football field must have been exceptionally gratifying to them; and when a few minutes after the whistle went, the British secured a try, which was converted into a goal, the cheering was redoubled. The match ended in favour of Britain by 5 to 3; but the local critics are strongly of opinion that a draw would have been nearer to the actual merits of the play.

Leaving Christchurch, the British team played on the following Wednesday at Dunedin, against the combined Otago and Southland teams, in the presence of some 20,000 spectators. This second match was also won by Britain, after a very fierce, hard-fought contest—by 14 points to 8.

The New Zealand match took place on the following Saturday, at Wellington, in the presence of some 30,000 spectators, many of whom had come from all parts of the Colony by special excursion trips. It is safe to say that no athletic event in New Zealand ever caused such immense excitement as this contest of the men from the Old Country with the pick of New Zealand. It was a struggle between the clever and fast forwards of New Zealand, and the tricky, resourceful, hard-striving British backs. The game ended in favour of New Zealand by 9 points to 3, amid scenes of the wildest enthusiasm. As the football critic of the *New Zealand Mail* remarked in his short and pithy way: "The British team was outclassed. They were beaten back and front, and that was the beginning and the end of the match."

BRITISH TEAM *v.* NEW ZEALAND.
(A goal kick fails.)

Leaving Wellington on the Monday, the Britishers next journeyed to New Plymouth, where they met the famous Taranaki team. Here, after a most exciting struggle, the match ended in a draw—very much in favour of Taranaki.

From New Plymouth to Auckland. But the team were now beginning to feel the incessant travelling and the frequent matches, and the sea trip from New Plymouth to Onehunga (the port of Auckland) was a fearfully rough one, most of the members being sick. This probably accounted for the fact that against Auckland the Britishers made a comparatively poor show, and were beaten by 13 points to nil.

This match practically finished the team's tour in New Zealand, but they journeyed from Auckland to Rotorua—the world-renowned district of the Hot Springs. Whilst here a scratch match was arranged against the Maoris. It was a strictly unofficial game, and was won by the Maoris by 8 points to 6; but this, of course, cannot be taken as any indication of the visitors' play. Three thousand spectators—most of whom were Maoris—received the result, however, with the wildest enthusiasm; and when one of the Maoris scored a try for his side, an excited Maori spectator rushed on to the field and bit the player's ear!

The tour clearly proved that in forward play the British are not by any means up to the New Zealand standard. Their backs, taking them all round, were better; but as they were nearly all the time playing behind badly-beaten forwards, their work was mostly on the defensive.

A team representing New Zealand intends to visit Great Britain next year. If they do, the Britishers will then have an opportunity of judging the work of the men who have been good enough to defeat such a powerful British combination as that which visited New Zealand in 1904.

SUMMARY OF MATCHES PLAYED.

AUSTRALIAN TOUR.

13 matches played, all won by Britain.

NEW ZEALAND TOUR.

Aug. 6th, Britain *v.* Canterbury, won, Britain 5, Cant. 3.

Aug. 10th, Britain *v.* Otago, won, Britain 14, Otago 8.

Aug. 13th, Britain *v.* New Zealand, lost, Britain 3, N.Z. 9.

Aug. 17th, Britain *v.* Taranaki, draw.

Aug. 22nd, Britain *v.* Auckland, lost, Britain nil, Auck. 13.

SUMMARY OF MATCHES PLAYED IN NEW ZEALAND.

Played 5; won 2; drew 1; lost 2.

Reviewing the tour, the Special Correspondent of the *Sportsman*, wrote as follows:

"Now, looking back on all that has happened since then, one can say without any hesitation that we have accomplished what was expected of us both on the field and off. We have given to our kindred down under a fair exposition of the Rugby game as it is played at present in the Old Country, and we have enabled them to judge of the amount of progress they have made since previous English teams were out.

"Taking our team as a good average first-class team, it would appear from results that, while the standard of Australian football is not up to that of the Old Country, New Zealand football is quite first-class. It should, however, be borne in mind that it was the end of our tour when we played in New Zealand, and that we had so much travelling and rough weather that our team was somewhat stale. Added to this was the fact that each team we met spent all its energies on that one game, whereas it was only one game of a series to us. Still, in all fairness, due credit should be given to the New Zealanders for their splendid play. When the last English team visited New Zealand in 1888 the home teams were beaten right and left, while in 1904 they more than held their own.

"The New Zealanders play quite a scientific game, going so far as to organise their 'scrums,' and have each forward in an allotted place. They play seven forwards with a formation 2—3—2, and they also have a wing forward. They contend that two front rank men can get the ball as well as three, while they have the same pushing weight behind, namely, five men. The front rank men, called 'hookers,' are not expected to do any pushing. The wing forward is a useful man, who puts the ball in the 'scrum' and throws in from touch. His duty is to get down on the opposing backs quickly if they should get possession; while if his own side secures the ball he prevents the opposing half from getting round, and is allowed to do this by the referee, provided he keeps one hand on the 'scrum.'

BRITISH TEAM *v.* NEW ZEALAND.
(Smart work by the visitors.)

"The backs consist of seven, as at home, but they are arranged differently. There are three halves and three three-quarters. The halves consist of a 'scrum' half and two flying halves or five-eighths. As to the manner of playing, it is similar to that at home. The backs indulge in short, sharp

passing, but we were not struck by the back play of any team we met. It was the forwards who won the games. This we did not attribute so much to the fact that they had definite positions in 'scrum' and line out—though we ourselves adopted the latter—as to the individual dash and splendid training of the forwards. All through New Zealand we found hard, solid, and fast forwards, who tackled and followed up in most resolute style, and in this lay their success.

"Australian football is similar to New Zealand, but not so good. They, however, play four three-quarters and two halves, and they have two wing forwards.

"Comparing our team with those of our opponents, I must say that I consider we did not meet one team whose backs were as good as ours, and we did not play one game in which our forwards thoroughly beat the opposing pack. We often held our own in the 'scrum,' generally were cleverer in the loose, except in New Zealand, and, consequently, were sometimes better than the opposing pack, but we never absolutely beat them. As a result, very few of our tries came from the 'scrum.'

"It was in the back division that our team excelled. Having so many Welshmen in the team, the Welsh style was adopted, and we were altogether too good for the Australians. In New Zealand we were always on the defence, and so had no opportunity of showing our attacking powers. One point in our play which greatly pleased the spectators was the centering by the wing three-quarters when hard pressed, and throughout the tour we scored many tries by this means. We were also very successful in goal kicking, converting no less than 33 tries, besides getting 6 dropped goals, 5 penalties, and 5 goals from marks.

"The result of our tour was :—

	Plyd.	Won	Lost	Drn.	Points For	Agst.
In Australia	14	14	0	0	265	51
In New Zealand	5	2	2	1	22	33
Total	19	16	2	1	287	84"

BRITISH TEAM *v.* NEW ZEALAND.
(A goal.)

The Perfect Boy.

DR. WM. W. HASTINGS, of the International Young Men's Christian Association Training School, Springfield, Mass., has compiled an anthropometrical chart from the measurements of 5,476 school children, which provides most interesting study. In connection with this chart the *New York World* recently published the following interesting remarks :—

Have you seen the boy who is physically perfect? He is a rare specimen, not to be found in every-day life.

Ideals of perfection differ with individual tastes, but the standard of sturdy boyhood—the physically normal boy—is discovered by different means. His type for each year of his life has been found. How tall he is, how broad, his strength and his powers of endurance have been discovered and made a matter of record. This type of a physically perfect boy has been obtained through years of careful investigation and computation for a very useful and practical purpose.

It is interesting to study the likeness of the perfect type of a boy, normal in all his physical attributes, but the value of this perfectly normal type lies in the standard of measurement it affords as a basis for the physical education of the real boy, who is not normal. It eliminates guesswork in prescribing physical culture.

The standard type of boy is a composite of many hundred boys. It is composed of a grouping of the fragmentary perfections of many individuals into one complete whole of these physical perfections.

The boy whose measurements are compared with those of this standard type is found to approach near to the normal perfection in some measurements, and in others to diverge far from the correct model.

Such measurements of what the boy is and comparison with what he should be is a sure guide to his deficiencies that need correcting. It does not decree the method to be used in the physical improvement of the boy, but it points out the results to be obtained. It provides a standard to which, with the aid of physical exercise, he ought to find it possible to conform.

As maturity approaches the period of normal growth and development practically ceases. The vitality and bodily peculiarities of the individual are largely determined for life. Boyhood is therefore the period of utmost possibility in bodily formation. Knowing what the boy should be it is possible to assist him in approaching a desired type.

By comparison with the standard of bodily perfection it can be known not only how tall, how broad and how heavy the boy should be at a given age, but what his vital powers should be to correspond to his physical proportions.

While the normal boy is complete and perfect in all physical attributes, the qualities which indicate vitality are the measurements of greatest consequence. The possession of endurance is more valuable than length or circumference of arms or legs. This is the new gospel of physical measurement and physical culture. It is opposed to the old style of muscle development, in which little attention was paid to the development of the vital functions.

The normally perfect boy—the type of the ideal—has a strength of lungs and heart and a steadiness of nervous force corresponding to his muscular development.

The corrective work to bring the measurements of the real boy into conformity with those of the ideal is now hygienic—simple muscular development is secondary to the production of vital strength. It is a change

in method from "the pursuit of muscular symmetry to the pursuit of health and vitality."

Not many years ago it was assumed that bone lengths and muscle girths were the equivalent of physical perfection. The new measurements are taken to ascertain the vitality of the individual; and the ideal, or standard type, has the perfections not only of appearance but of the essentials to a long and useful life.

Weight is taken as the best general indication of vitality. Height sitting is an essential measurement, as are breadth of chest and waist, depth of chest and abdomen, girth of chest expanded, contracted and normal. Strength of forearm, back, legs and shoulder retractors, as indicating muscular function and nervous control. Breadth and girth of head demonstrate the physical basis of mental efficiency.

In his search for the standard type of the boy Prof. Hastings has had an eye to the essentials. The tables are for the very practical purpose of assisting those intrusted with the physical culture of school children in prescribing the exercises that will contribute to the real strengthening of the pupil.

"The really vital thing to ascertain in the whole matter," says Prof. Hastings, "is the comparative size and function of the master tissues and the serving tissues. Is the development of the vital organs in proportion to that of the muscular system? If the balance is in favour of the vital organs the individual will possess great vitality. If the individual has a large muscular frame associated with a small vital capacity he will not possess any great endurance or 'staying power.'"

Relative weight to height is acknowledged the best one all-round index of vitality.

If a boy deviates from the standard type in height, the standard can indicate little or nothing as to what his development ought to be. The tall boy or the short boy cannot be made to conform to the typical individual pictured in normal standard. The only tables which can provide a true type for a given individual are those which give the normal for each height of each age, for the reason that height is practically an unalterable element in the problem. The short child cannot be "spliced" nor the tall one "sawed off," but their development can be made to conform very nearly to the typical measurements for an individual of the height and age of each. The tall boy of the standard type is more slender in comparison with the ideal type and the short one typically more "stocky."

In the widespread attention now given—in schools, associations, gymnasiums and the homes—to the physical development of children, the knowledge of the correct type of the child is essential to the proper direction of this important work.

The director of physical training, in order to know the results of his work, is called upon to make regular physical examinations and compare the development of his pupils with the established standard of the normally perfect child—the ideal toward which he aims.

"A little knowledge is a dangerous thing." In a leading Australasian journal recently to hand we read the following wonderful account of the history of the famous English Cup:—"It may interest many players here to know that the English Football Cup (the competitions for which each year *attract millions*) is worth but about *fifteen shillings* in money, but is considered priceless by the club who wins it. The Football Association, when they bought it *second hand*, had 32*s*. 6*d*. balance. Now they have *about eighty thousand pounds*. The Cup was stolen once, but was returned by the thief, who evidently could not get anything for it." Wonderful!!

Woman's Physique and Endurance.

RECENTLY commenting on the deplorable catastrophe on Loch Dearg, wherein, through a sudden storm springing up, only one, a girl, survived of a party of four young men and four young women, the *Evening Standard* quoted some most interesting proofs of the wonderful powers of endurance possessed by the female sex:—

"Some years ago the Acting Commissioner for New Guinea mentioned in his report the extraordinary achievement of a Fiji woman, and our late Queen, reading the story, requested Sir G. Des Vœux to send her the particulars. They are worth remembering. At any early hour one Saturday a Fiji canoe, with a man and wife on board, was swamped. They saved only a paddle and a box of clothing. All day the pair swam side by side, and all night. On Sunday morning they were attacked by sharks and fought with them for hours. One succeeded in biting the man, not seriously, however; and then it seized the woman's cloth, dragging it off. Probably the brute got its teeth entangled in it and frightened all the rest, for they vanished. Thus the pair were able to get some sleep, one supporting the other alternately; but the wife had to do most of the watching in these intervals of rest, for her husband, failing, could not keep awake. So they swam and floated, till they gained the land on Sunday evening, without food for two days and a night. The man was utterly spent—his wife fresh enough to go in search of aid. And Sir George Des Vœux adds that the natives expect this result in such a case, because 'women last so much longer than men in the sea.' It must not be omitted that Her Majesty sent a gracious little message to the heroine, and a present.

"Certain experiments carried out by Professors Nicholls and Browne in the United States, three or four years ago, appeared to show a physical reason for the greater ability of woman to bear the trials of life. Using a series of elaborate and ingenious tests upon subjects of either sex, chosen from all ranks of life, they satisfied themselves that the senses—smell, taste, sight, touch, and hearing—are all more or less inferior, as a rule, with women. It was a comforting conclusion, and one that explained many facts. But the wide publication of these researches set other *savants* to work, notably Professor Jastrow in the United States, and Dr. Runcoroni in Italy. And they, without questioning the good faith of the earlier enquirers, quite failed to verify their statements except in the matter of touch, which is the least significant of all for our purpose. And yet, while the question is still undecided, we may suspect that the slowness and unhandiness of feminine students in the laboratory has a certain bearing in the matter. Professor Vogt put the case with German roughness:—'One would have thought that the delicate fingers of young women were specially adapted for microscopic work, &c. But just the contrary happens. One recognises the place where female students have been by the fragments of glass, broken instruments, notched knives, stains of chemicals and colouring agents, spoilt preparations.' The great majority of British experts are said to admit the truth of this charge.

"But we have been talking of moral endurance; out-and-out advocates also claim a physical superiority for women. They point to her wonderful advance in stature and athletic force of late years, and thus argue that the feat of Miss Winifred Green, to which we have referred, is only an example of the change of work. Huxley once wrote:—'The most Darwinian of theorists will not

venture to propound the doctrine that the physical disabilities under which woman has hitherto laboured are likely to be removed by even the most skilfully-conducted process of educational selection.' But that was a generation ago and more; there are enthusiasts not altogether unqualified to express an opinion who believe that the average woman can be trained to equal the average man in bodily strength, and that she has more staying power. The views of Mr. Sandow's representative in this country have been published in support of the contention. He finds that in the gymnastic schools under his management girls do not 'tire' so quickly as boys. This practical authority reports that until the age of fourteen the sexes generally are equal in strength; if there be a difference it is on the side, as a rule, of that which we have been taught to regard as the weaker. The assertion is interesting, but it does not bear expressly on our point, for a girl of fourteen is not a woman. However, the gentleman makes an explicit statement:—'Women have more endurance than men of a certain sort; probably, it is mental endurance.' The qualification is somewhat puzzling; perhaps a subsequent remark explains it:—'They are more patient in time of danger.' But is this the common experience? Most readers have had an opportunity to observe women who believe themselves in danger. We suspect that they would not generally describe their attitude as patient."

AN ANGLO-CHINESE GYMNASIUM!

FAR more useful to the Chinese than all the various religious missions that ever landed on the vast shores of China is the endeavour now being made by British subjects in Tientsin to train the body as well as the mind of the young Celestial. Last May the first Anglo-Chinese gymnasium in China was opened at Tientsin, the function being attended by all the leading Chinese officials and the principal British residents. Major Menzies and Dr. Lavington Hart, founders of the Anglo-Chinese College—a flourishing educational institution—were prominent in the inauguration of the gymnasium. The scholars, who are attired in European clothes and wear straw hats with the college motto, "Onward and Upward"—a motto, perhaps slightly reminiscent of a balloon club—have proved very apt pupils, and thoroughly enjoy their exercises, which embrace dumb-bell practice, horizontal bars, rope-climbing, and, indeed, all the curriculum of the gymnasium. The Chinese students take very keenly to European civilisation, and can enjoy the "five o'clock" tea, proving themselves no mean performers on buns, cakes, and other European "nicies." It is to be hoped these young and athletic gentlemen are not destined ultimately for the Johannesburg mines, as they might well prove rather a handful there after undergoing this athletic training, coupled with the imbibing of European ideas.

Physical Training at St. Louis.

THE following *résumé* of the doings in connection with physical training at the St. Louis Exhibition is taken from *American Gymnasia* :—

An important feature of the Universal Exposition at St. Louis, in commemoration of the purchase of Louisiana, has been the work carried on by the Department of Physical Culture. But its importance has not received the attention from fair attendants that was expected when the Exposition opened. That is, the number of spectators to the athletic events and the number of visitors to the gymnasium building has not run large, although some of the athletic features drew thousands of people. There were several reasons for this. Although the Exposition management were very liberal in providing for the physical department, it allotted space that was far removed from most of the features of the great Exposition; there was so much to see at the "main show," as one man expressed it, "that only those deeply interested ventured the journey to the stadium and gymnasium." The season of the year, in mid-summer, was against numerical success also.

In making a critical review of the physical training section, it must be borne in mind that this was the first time in the history of that great factor in the welfare of humanity that it has received official recognition as an independent department of an international Exposition. The great model stadium, with a seating capacity of 20,000, a complete athletic field, a permanent gymnasium building, and a liberal appropriation from the Exposition Company for expenses, might reasonably have been expected to bring forth large results for the good of physical training. But, being something new, the people whose interest was expected maintained either an aloofness or an indifference, some from force of circumstances, some from personal inclination, some because they preferred to let others do the pioneer work.

There was another reason why the department has not appealed to many of the physical directors of the country who have the best interest of the profession as a whole at heart. That reason was the prominence given to purely athletic events. Gymnastics and physical education matters of a scientific nature were overshadowed by the contests in the stadium.

There has been no special criticism of the management of the department, except in the instances mentioned, and there is reason to believe that those who had the great undertaking to conduct did as well as was possible with the material at hand. Such comments as may be made in this article are made simply from the standpoint of onlookers interested in the best there is in physical development, with a desire to see that best side advanced. Possibly if some of the criticising ones had lent their assistance, the final result might have been more to their liking. This must be consolation to the men in charge, if they need consolation.

Concerning the matter of attendance, the Fair officials take this view :—

"The Exposition management has offered so many varied and interesting attractions for the entertainment of visitors that no single one of them has received an attendance beyond those who were vitally interested in the subject. This applies to the physical culture department. Those who did attend were deeply interested, and consequently very appreciative."

It must be borne in mind also that mere attendance is not the whole result expected from such an undertaking as this. The after

influence of it must be considered. The lectures, for example, relating to important physical educational matters, and delivered by recognised authorities, while attended by only from three to twenty five or thirty people, will be published in various forms accessible to physical instructors, and the matter thus saved for future use. The fact that the cause of physical education has been so publicly recognised will be a valuable factor in its favour.

The final result of the physical culture department as a whole is not likely to bear out the statements that have been made and published, that it has been a failure, whatever defects there may have been in giving undue prominence to a single feature of physical training.

The physical training lecture course held in the gymnasium building during the month of August was probably the most comprehensive series of lectures on this subject ever offered to the public. Four lectures daily were given through the month, the lecturers and the subjects of their courses being as follows :—

William G. Anderson, M.D., "Gymnastic Dancing and its Place in Secondary and Collegiate Schools."

E. H. Arnold, M.D., "The Organisation and Conduct of School Games."

Jakob Bolin, New York, "Developmental Gymnastics."

C. Ward Crampton, M.D., New York, "The Correlation of Hygiene and Physical Training." "Some Recent Advances in the Science of Physical Training."

H. S. Curtis, Ph.D., New York, "The Playground Movement."

G. W. Ehler, B.S., Chicago, "The Adaptation of Physical Exercises to the Modern Conditions of Life."

Hon. David R. Francis, President Louisiana Purchase Exposition, "New Conditions of Civilization which make Physical Training Necessary."

Luther H. Gulick, M.D., "Athletics and Social Evolution."

Geo. T. Hepbron, New York, "The Equipment and Construction of Gymnasiums and Athletic Fields."

C. W. Hetherington, A.B., Columbia, Mo., "Divergent Effects of Uniform Physical Training upon Different Individuals."

G. Stanley Hall, Ph.D., LL.D., Worcester, Mass., "Health as Related to Civilization."

G. E. Johnson, A.B., Superintendent of Schools, Lowell, Mass., "Play in Relation to Education."

David F. Lincoln, M.D., Boston, "The Treatment of Feeble-Minded, with Special Reference to their Education in a Public School System."

R. Tait McKenzie, M.D., "Artistic Anatomy in Relation to Physical Training."

Paul C. Phillips, M.D., Amherst, Mass., "Anthropometric Methods."

J. E. Raycroft, M.D., Chicago, "The Organization and Administration of Physical Training."

F. A. Schmidt, M.D., Bonn, Germany, "The Physiology of Exercise."

F. J. V. Skiff, "The General Advantages of Athletic Exercises to the Individual."

C. H. Watson, B.S., Brooklyn, N.Y., "Muscular Movement and Human Evolution."

"There is no better known or more generally useful precept in the moral training of youth, or in one's own personal self-discipline, than that which bids us pay primary attention to what we do and express, and not to care too much for what we feel. . . . To wrestle with a bad feeling only pins our attention on it. . . . Whereas, if we act as if from some better feeling, the old bad feeling soon folds its tent like an Arab and silently steals away."

—*Wm. James.*

Motoring: Its Pleasures and Benefits.

By F. NEVILLE PIGGOTT.

TO-DAY motoring to the great majority is like horse racing—"the sport of kings"—but although one may not be possessed of the means to own a "string" of Persimmons or Pretty Pollies, he may still be able to follow his inclinations by means of a more moderate priced animal and get just as much pleasure out of it. Just the same with motoring. The millennium of the motor has not yet come, but already machines are being placed upon the market of a more than reliable character, as has been proved by test conditions, which a few years ago would have been quite out of the reach of many who to-day are able to enjoy to the full the exhilaration attaching to motoring. This is the result of demand and competition, which, in the opinion of authorities, will, in a short while, bring about a still further reduction in the price of motors. "It is being proved," stated my authority, "that, irrespective of high speed, as much pleasure can be obtained by the man of moderate means, and as reliable a car for £250 as the moneyed man gets for £2,000." That such is the case was amply proved to me quite recently, when, through the kindness of the London manager, Mr. W. L. Duck, I was able to be present during a test run of one of the cars manufactured by the Winton Motor Carriage Co., of Cleveland, U.S.A. This firm, which is practically the pioneer of the cheaper car, holds a unique position across the water. They have only recently introduced their machines into this country, but—like the article—when once it becomes realised that this firm is able to ship and deliver to their customers in this country a really reliable car of 20 h.p. for £475, they are sure to go.

During the aforementioned test run of a newly-arrived car over a circuitous route of 150 miles, I learnt much from Mr. Duck of the history of the "Winton," and it says much for the quality of the manufacture and the confidence reposed in the firm, when it is stated that six years ago Mr. Alexander Winton, with half a dozen assistants, was *building* automobiles in a shop occupying one room in a power building, where he rented space, whereas to-day he is *manufacturing* automobiles with a plant of his own, and employing from 800 to 1,000 men. It is the fact that from first to last the motor is made on the premises which accounts for the very moderate price. Nine-tenths of the factory is devoted to producing automobile parts. Each man and each machine produces a certain part. Gradually these parts work together to form a complete automobile, but it is not until the door of the shipping room is reached that the "Winton" automobile is finished. Most of the wonderful machinery is automatic, and this accounts for the fact that at the present time the firm is turning out cars at the rate of *one per hour*. It is these automatic and labour-saving tools, combined with system (another great secret of the firm's success), which make this possible. The various buildings are so arranged that the raw materials are received at the centre of the plant, and are distributed in the course of manufacture

in opposite directions. Gradually they assume shape, and when they have worked their way back again to a central point by another route they are finished automobiles, ready for shipment. The cars are brought to this country intact, and it was in a recent arrival that we took our places for the purpose of testing the capabilities of the new comer.

A MOTORING

1. SOMETHING WRONG! 2. PUNCTURED! 3. HERE IT IS!

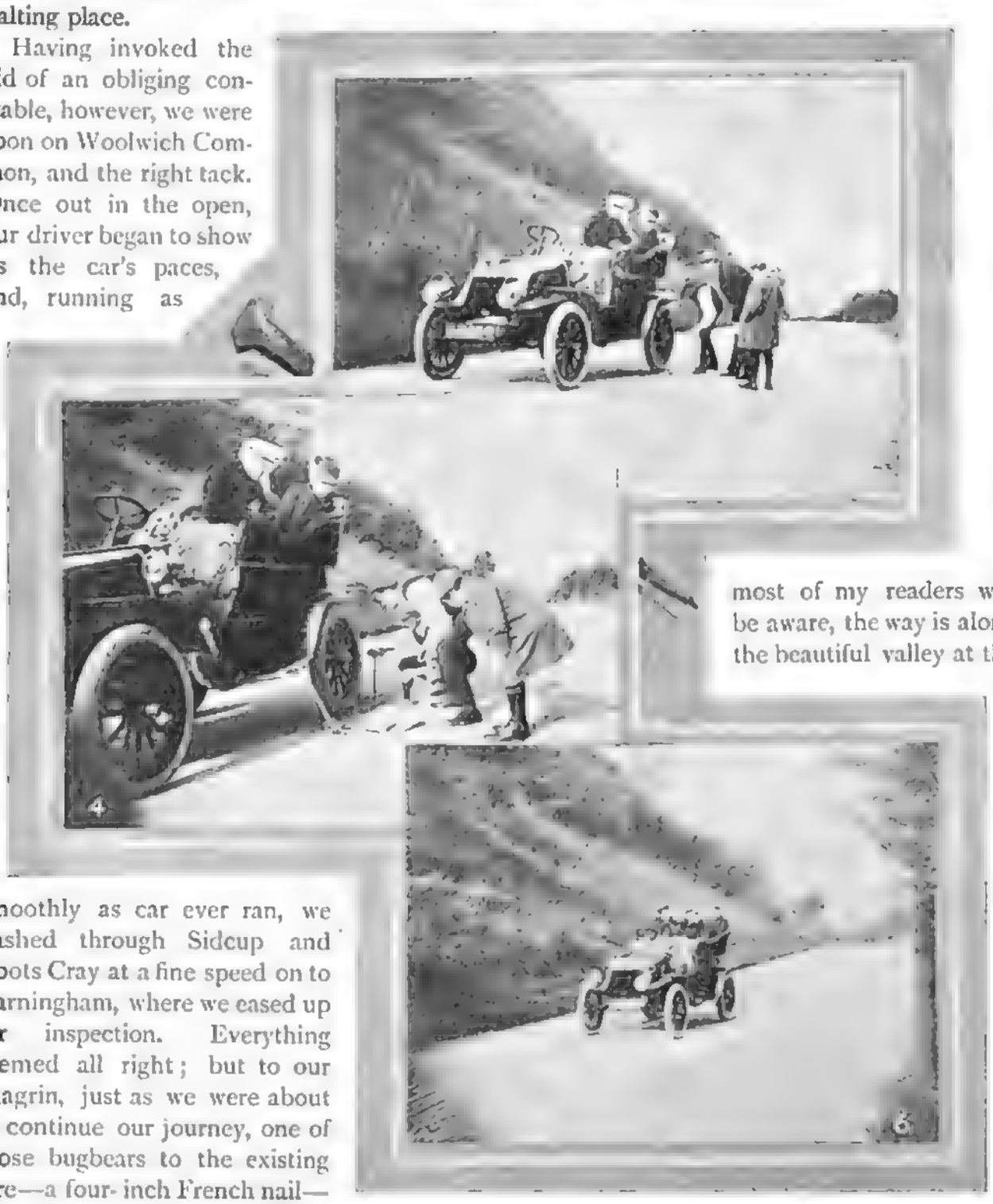
The turn-out looked very smart as we left the new "Winton" premises at No. 48, Holborn Viaduct, with the autumnal sun shining brilliantly; indeed, but for the falling leaves and copper tints in the foliage, together with a certain "nippiness" in the nor'-west breeze, one would scarcely have believed that the year was well on the wane. It was just the sort of day to realise to the full the pleasures of motoring, and we were soon enjoying them to the utmost.

Our first objective was Tunbridge Wells; and wending our way through the crowded traffic of south-east London gave our driver plenty of opportunity of proving his skill at handling a car. So interested were we in the

working of the engine, &c., that we were well on the way to Woolwich ere we discovered that we were bearing away from our first halting place.

Having invoked the aid of an obliging constable, however, we were soon on Woolwich Common, and the right tack. Once out in the open, our driver began to show us the car's paces, and, running as smoothly as car ever ran, we dashed through Sidcup and Foots Cray at a fine speed on to Farningham, where we eased up for inspection. Everything seemed all right; but to our chagrin, just as we were about to continue our journey, one of those bugbears to the existing tyre—a four-inch French nail—was found firmly embedded in the tread of the near back tyre.

EPISODE.



4. REPAIRING. 5. REPAIRED. 6. OFF AGAIN!

There was ample proof that the inner tube had sustained a puncture, but as it was slight we decided to make the most of our opportunities and get to Sevenoaks, where we knew we could find a good repairer. As most of my readers will be aware, the way is along the beautiful valley at the bottom of which flows the little river Darent, and the scene as we sped along through Otford was beautiful in the extreme.

We made Sevenoaks in splendid time, and then, somewhat to our surprise, found that the puncture had by some means filled up, and there was, therefore, apparently no necessity to call in the repairer; at least we were willing to risk it.

Another pleasure of motoring is the appetite which it engenders, and nothing loth we decided to make a halt for luncheon. It would be invidious to mention names, but I would advise those who desire to be fairly treated in Sevenoaks to remove all suggestion of "Motorist" ere venturing into a hostelry.

We apparently had to pay for the privilege of being able to travel by motor, and the only crumb of consolation afforded us was the fact that "in the season" certain items on the bill would have been as much again! However, having fortified the inner man we resumed our way *viâ* Tonbridge to Tunbridge Wells, the engine behaving splendidly and taking the hills at top speed in fine style. This is a feature of the Winton, of which our driver was justly proud, for never once during the whole of the journey did we slacken speed, however great the up grade, even the famous Hand Cross Hill holding up no difficulties whatever, and our engines enabling us to show a "clean pair of heels" to many more expensive machines of greater h.p.

It need scarcely be mentioned that this feature of the car makes it a most desirable machine, and, as bearing out that contention, I need only quote Mr. Henry Norman, M.P., the editor of *The World's Work and Play*, in the October issue of which he dilates upon "The Car that Doesn't Climb," from which, in support of my argument, I quote the following:—

"To my thinking, a motor-car which cannot climb—at some speed or other—every hill on every main road in the country, cannot be regarded as satisfactory. Of course, to be a comfortable vehicle it should also climb them without excessive noise and vibration, but that it should manage to get up them somehow, with its normal load of passengers, seems to me an obvious requirement. A man I know, bought last autumn one of the most advertised small cars, built by a famous firm, and drove it from the maker's garage fifty miles into the country, without an involuntary stop. This was on a Saturday. On the Monday he drove it to the nearest railway station, put it on a truck, and shipped it to London to be sold by auction. It climbed every hill, but so slowly, and with such fearful noise and vibration, that he paid the expense of sending it by rail, and his own fare, rather than drive it another fifty miles. Thus, let it be remembered, not every car which does climb hills is satisfactory. But what is to be said of cars which do not climb hills? The average speed of a journey by automobile depends chiefly upon the speed at which hills are climbed. To *average* twenty miles an hour throughout the day, a car must take all ordinary inclines at that speed. Then the extra speed on the level will about balance the slower speed on severe gradients. I have paid a good deal of attention to this point, and the above is my conclusion. Moreover, nothing is so annoying as to have one's car knock and labour and crawl and finally stop on a hill, and to be reduced to having one's passenger or passengers get out and walk or push. Therefore I turned with the greatest interest to the record of the small cars in the matter of hill-climbing during the recent trials. The trials took them over two hills, one of these being Fromes Hill, the well-known ascent midway between Hereford and Worcester. Four cars had retired before Fromes Hill was reached, and of the thirty-one remaining, no fewer than nineteen failed on one or the other hill. Frankly, I consider this a disappointing record."

And I think so, too—a record which our Winton, thank goodness, was not disposed to emulate.

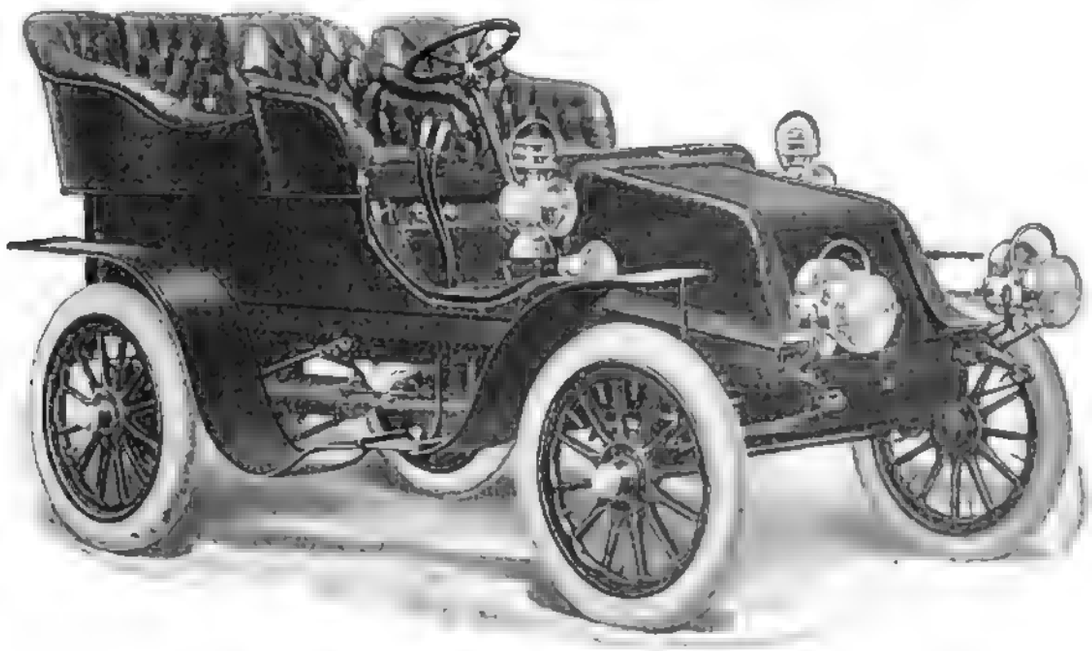
In connection with the above-mentioned trials, the following letter from a competitor, showing the capabilities of the Winton, provides interesting reading:—"It may interest

you to hear that, during the Small Car Trials at Hereford, my Winton car climbed two of the test hills at Dinsmore, and also Stoke Lacey Hill on the top gear. The latter hill is a very steep one, having, I am told, a proportion of one in seven, but the car took it easily, though starting from rest at the foot of the hill."

After a very brief stay at Tunbridge Wells, for the purpose of testing our punctured and yet unpunctured tyre, we continued on to "London by the Sea," the journey through Copyhole, past Crowborough Beacon and Uckfield, to Lewes offering ample opportunities for testing the capabilities of our "steed," and when we reached Brighton an average of from twenty to twenty-five miles had been well maintained.

For the return journey we decided to take the usual route over Hand Cross Hill, through Crawley, but turning aside at Horley to traverse the road through Redhill. By the time the latter place was reached the autumn day was fast drawing to a close, so that a stop became necessary for the purpose of lighting-up, but this was the only occasion we brought to on the return journey of a trip which proved to the full the great pleasures of motoring, which cannot even be discounted by such a *contretemps* as is shown in the accompanying photographs.

Apart from its pleasures there is another side of the question to which reference must be made, and that is its benefits. I have previously had the opportunity in these pages of referring to the benefits of motoring. Mr. Lewis Waller, in an interview with me, expressed the opinion that motoring is one of the finest things going for the throat and lungs. "Some may be disposed to question this," he said; "but I have proved it over and over again, when, after having worked hard, I have felt a severe strain on the throat, a sixty-mile run in my motor has set me right again. Of course it stands to reason that the additional amount of oxygen inhaled must benefit the breathing apparatus." But an even greater authority is forthcoming; for Dr. Edward Smallwood strongly advocates motoring as a positive cure for sleeplessness and diseases of a consumptive nature. He says it is a splendid thing for asthma, and a better cure than any yet devised for business worry. Of this there can be no doubt whatever; but I can hear some of my readers say: "Yes, no doubt an excellent thing, but how is it to come within my reach?" At the present time that may be an impossibility; still, there is no reason why in a short while the means may not be within your power, for with the universal demand and a commensurate reduction in price the most moderate purse may be able to afford a "Winton."



OUR CAR—20 H.P. WINTON TOURING CAR.

A Clergyman and Degeneration.

STRONG indeed were the arguments used by the Rev. W. I. Brooke, Vicar of Holy Trinity, Halifax, in a most interesting paper given before the members of the local Debating Society recently. The subject was the degeneracy of the race, and the reverend gentleman remarked that the Anglo-Saxon race was becoming more and more a town-loving and a town-dwelling people. There had grown into the hearts of the people a dislike for country labour. In South Africa, in seven cases out of ten, the Dutchman was the farmer, and in eastern Canada the English Canadian despised farming. In England the town population was steadily increasing. Various economic causes had brought this about, but one must confess that people were not dragged into the towns unwillingly—that they liked the towns and town life, the gas lamps, the excitement and amusements. If they watched the people in Halifax on Saturdays they would find old and young crowding into the centre of the town, not always to buy but to see "such a lot of bodies." The evidence on the whole pointed to the fact that town-dwellers were degenerating. Take the three Halifax schools: Akroyd-place, Parkinson-lane, and Wainstalls, and they would find the physique of the children at Akroyd-place School, in the centre of the town, was much the worst; whilst the physique of the children at Wainstalls Schools, which was in the country, was much the best. He thought the inquiry on the lines followed by Dr. Hunt, to whom they were all indebted, ought to be carried out in greater detail, as the Halifax borough afforded peculiar opportunities for such an investigation. Of course, drunkenness was one of the greatest causes for degeneracy. Still, if children of drunken parents were eliminated from an inquiry the physique of the town children would still be found to be lower than that of the country children. He did not think that low wages had so much to do with it as some urged, because a lower physique seemed to show itself in the children of parents who earned high wages. The broad fact might be stated that it was town life which caused degeneracy. For this he saw no remedy, though possibly certain contingencies might modify results. Good air, good food, good water, and good houses were the principal practical things required, but if all these were supplied the difficulty would not be overcome. It was largely a question of character. The reluctance of a people to make sacrifices, whether on the battlefield or at home—the wretched outcry of the newspapers about a few casualties at Colenso and Spion Kop, and the decrease of the population, sprung from the same cause—change of character. But if he had to deal with practical remedies, he would suggest the following: the supply of pure air, the teaching of the people how to buy and cook food to the best advantage; the encouragement of all egress out of the towns; the endeavour to keep the people on the land by the supply of small holdings, and the improvement of the conditions of village life; the abolition of out-door relief, and the stricter administration of the Poor Law; and the improvement of the suburbs of the towns. In this last remedy he would include the building of garden cities and the supply of parks and open spaces. It was impossible to exaggerate the importance of pure air, and in this respect he was inclined to think that the people of Halifax were worse off than those in London, chiefly because there was far more smoke. In the matter of food, the milk supply was of the greatest importance, and the municipal authorities might very well

step in so long as their efforts were not pauperising and not unduly and unfairly competitive with private trade. The ignorance of many people as to the constituents of food prevented them providing and preparing what was best suited for their own use, and was still more dangerous in the feeding of very young children. This ignorance existed almost as much in the country as in the towns. Education might do a little in altering this. At heart the question was one of character, and if they weakened character, they made the matter worse. If, for instance, children came to school apparently under-fed, and were fed in school wholesale, then parental responsibility was destroyed, and the carelessness and drunkenness of the parents probably increased. Child neglect should be punished, and when help was needed, it should be given at home and not in school. But inquiry must precede attempts at reform. Many would-be reformers did not even wish to know the facts, but asked themselves. "What is popular?" They tried to stimulate their wavering, slip-shod conscience by sentimental drivel. It was these blind teachers of the blind who had added much to the confusion of the present day. Thorough and careful investigation, however, would bring to them seriousness if not sadness. Yet surely it was worth an effort—aye, worth a lifetime's work—to help even but a little towards restoring their race to simpler, more natural, healthier conditions of life.

Dr. Mantle, discussing the various points raised, strongly emphasised the necessity for pure air, which, after all, was life. The atmospheric question in towns like Halifax was becoming a terrible one, and, unfortunately, the cause of it was intimately associated with the earning of the daily bread of the majority of the people. Could not this state of things be remedied? It was a fact that trees and green plants were Nature's manufacturers of oxygen, which was a necessity of life, and consequently where there were plenty of trees the pollution of the atmosphere by the smoke from these great chimneys was to a large extent counteracted. Indeed, it was absolutely necessary to have plenty of plant life in every large town. He hoped the Corporations of the country would take up the question of the pollution of the air as seriously as they had that of sanitation. He understood that Leeds, in their next Corporation Bill, intended to impose strict regulations with regard to the smoke nuisance, and he hoped Halifax would follow suit. The housing of the people also seriously affected the question. If they only saw some of the miserable houses in which some poor children had to live no one would wonder why children were not reared as they ought to be. The longer he practised the more was he convinced that the bulk of the diseases were traceable to the nervous system. In fact the race was becoming more nervous. Polluted atmosphere, he did not think, was altogether responsible for that, though it undoubtedly did cause a weakened condition of body, and in towns there was a tendency for people to drink more. He could not help thinking that this nervousness was due to a large extent to the vast congregation of people in towns, and the amusements and literature of the present day, which, he was sorry to say, were fast degenerating. Nowadays, people were no longer content with good healthy amusement, a good play of Shakespeare, but they must go to music halls. He had not had much experience of music halls, but he could not help thinking that these amusements pandered to the lower tastes. They were not elevating; they were too exciting, and put a constant strain on the nervous system of the young just at the time everything should be quiet and undisturbed. The newspapers of to-day were more or less full of exciting incidents which had occurred during the day—murders and the like. All these things re-acted on the nervous system of the town child, which had less resisting power than that of the country child. If the population of this country two generations hence was descended from town dwellers, he was afraid it would be a very unfortunate

population, and one which could not possibly uphold the traditions of this great nation. This fact should impress upon everyone the utmost importance of getting people back to the land.

An interesting discussion followed on several points brought forward.

In reply to the debate, the Rev. W. I. Brooke contended that degenertion was taking place in all classes. Women did not show degeneracy so much as men, but whether that was because men became more dissipated or whether it was a matter of millinery, he did not know. He did not think women in towns to-day were as fit to bring up families as the mothers of the past.

ECONOMY (?) AT ASTON.

At a recent meeting of the Aston Education Committee, the Rev. E. Dale Roberts moved the adoption of a recommendation by the School Management and Attendance Committee, that the appointment of Mr. A. J. Moorhouse as Superintendent of Physical Training should expire on the 31st of December next. He pointed out that a short time ago the scale of salaries of the teachers was raised. The Town Council was approached with regard to the matter, and was asked to give the product of a penny rate to enable the Committee to carry out its purpose. The Council, however, could only see its way clear to give £350, and intimated that the Committee must try to raise the rest of the money by the exercise of various economies. The Committee consequently resolved to dispense with the services of some of the teachers in special subjects. It had already dispensed with two from the Higher Elementary School. Upon the question of salaries, Mr. Roberts reminded the Committee that the amount incurred this year would be £600, next year £1,553, and in the following year more than £2,000.

The resolution was seconded by Mr. J. Thacker.

The Rev. F. Moore did not know whether it was worth while making a protest, but when they had an excellent servant, doing an excellent work, he thought it a pity he should be discharged, especially on a plea of economy.

Alderman H. H. Carrad opposed, and Councillors Parkes and Probert supported the resolution. Councillor Probert asserted that Mr. Moorhouse had given very little attention to the physical instruction in the general schools, his whole time being practically devoted to one or two schools.

Mr. J. Davis and Mrs. Bushnell urged that physical training in the hands of the teachers would be perfectly safe.

The resolution was carried, the Rev. F. Moore and Alderman Carrad voting against it.

WASHING THE GERMAN BOY.

(By permission of *The Daily Mail.*)

NO efforts are spared in the "Fatherland" to bring school hygiene to a high standard of perfection. Every Board school is provided with a well-equipped gymnasium and a "brausebad," or douche. The latter is situated in the lower portion of the building, and during the winter the heating apparatus for the school supplies also the necessary water for the douche baths.

In summer the water is heated by a gas stove containing several Bunsen burners. By the latter method the baths are ready for use in half an hour. Just as the times of instruction are fixed, so are the hours for gymnastic exercises and douche baths. The elder children receive three or four hours of physical training per week, and every child at least one douche.

No doubt the German boy has not so many outdoor games as his English cousin, but, considering that the former spends six and a half hours per day in the school, and this is supplemented by anything from three to six hours' home work, he is not so much overmatched in a comparison of physiques.

But the systematic attention which the lads and lasses of Germany receive regarding bodily development and cleanliness is certain to have a great effect upon their future. Every child is examined by the school medical officer at least three times in a year. The child's "health sheet" contains all information about its physical condition which the parents ought to know. But, if they do not act upon this when necessity exists, on their shoulders lies the blame, for surely the State has done its duty, especially to the poorer classes.

The German school doctor has only the power to advise, but the school dentist treats the children.

AN M.P. ON PHYSIQUE.

IN last month's issue of the *Magazine of Commerce*, Mr. Richards, K.C., M.P., has a most entertaining article on the question of physical deterioration and overcrowding from the commercial point of view. He shows most conclusively how necessary it is to make further efforts towards counteracting the ill-effects of town life amongst the poorer classes, and also the need for some method of feeding the school children properly. Mr. Richards since 1882 has visited London's industrial schools, and he proceeds to prove how infinitely better off the bad boy is than the good one, and gives his experiences of a recent visit to a reformatory as follows:—

"It is this question of the next generation which employers and manufacturers have yet to face, and we cannot, with a declining rural and an increasing urban population, expect to find strong and healthy, or even workable and capable, lads and lasses unless we pay more attention to their early feeding and training. London's bad boys and hooligans are frequently the subject of newspaper headlines and articles, but how few outside the magistrates, the much-abused police force, His Majesty's inspectors, and the Home Office are personally, or even critically, familiar with the results achieved by the best of our reformatories, where boys are saved from their 'environments,' and in so large a proportion (for not 10 per cent. are lost, and these are they which return to their *slum dwellings*) become—but not in London or great cities - useful members of society! So impressed have I become with this problem that, instead of spending the first part of the vacation on the moors, I went into retreat at the Farm School at Redhill, where 300 boys are in constant training, and the work has been going on for more than half a century. I watched the arrival of the raw material and the departure of the finished article for just four weeks, keeping the same healthy hours, if not subsisting entirely on the simple but bone-and-sinew-giving food with which these growing lads are provided. To bed at nine and up at six was a great change from the ordinary life of a metropolitan Member, but my host the Warden was up long before this, and at six o'clock taught his class of lads, nearly forty in number, who had got beyond the seventh standard. The other boys were at school before breakfast, and at nine o'clock we all met in chapel for a service, which, though old and familiar, was bright and hearty, and where masters and boys joined in congregational singing with results which would be envied in a town or country church outside Yorkshire or Cornwall. It is the keynote of the life which makes the lads healthy, moral, upright Englishmen, and which does not make them 'professors or hypocrites,' which too often go together in institutions which are run on sensational lines for reporting purposes. Chapel over, the work of the day begins. The masters of the houses meet the Warden, the labour masters take the boys to their allotted tasks, and the best and happiest of all the scenes of my voluntary retirement from the world was to witness the ingathering of the wheat and barley harvest from an area of over two hundred acres.

"I took on my rounds one Sunday a well-known West-End doctor from Mount Street (Dr. Fielding-Auld), and he was most anxious to take chest measurements of the lads, whose physique astonished him. This was the result of good feeding—meat four times a week, properly cooked, plenty of vegetables grown on the farm, pudding, gravy, home-made bread, and milk from the cow and not from

the shop. My own Saturday night inspection of the baths had shown me at an early stage the difference between the finished article and the entered apprentice. On my first tub Saturday I picked out a terribly thin lad, and asked the housemaster what was the matter with the lad. His reply was significant. He was the gin and fried-fish product. I saw him on my last Saturday inspection, and after three weeks' feeding on the simplest fare—for the Government and county allowance, which has to cover everything, is but six shillings a week, and less when the boys develop into a wage-earning condition—he was a changed being. To watch the boys swimming in their little tributary river, fitted up as a small swimming bath, they present a spectacle of rude health such as I saw with envy at Grasmere Sports in Whitsun week, when the lads entered under 16 for the Guide Races would pass muster in height and size with our town-grown boys of 18 or 20.

"My three years' experience of industrial schools as a past member of the London School Board showed me that boys needed and enjoyed something more than school lessons. My holiday month spent in the Farm School at Redhill, with its 300 boys, proved to me that country life, farm work, manual labour, combined with secular and religious training, will change the street nomad, the budding criminal, the outcast pariah of modern city dwellers, into a healthy, self-respecting keen soldier, an intelligent farm servant, or an artificer or skilled mechanic, who will hold his own against the certificated student of a City guild or technical college. Simple food, open-air surroundings, regular and firm discipline, turn out not automata, but lads whom employers of labour would be glad to secure, and whom reformatories could successfully and successively provide, if the question of 'after hours' and home life could be solved by employers as it is by the Army and its discipline, and colonial farm life and its home and surroundings, away from the town and the street. Such is my personal conviction, based on four years' committee work and one month as an inmate of a model reformatory."

LORD CHARLES BERESFORD ON PHYSICAL TRAINING.

On the occasion of the visit of the Channel Fleet to Lerwick, the new Volunteer Drill Hall, recently erected for local Volunteers, was formally inaugurated by Vice-Admiral Lord Charles Beresford. Major Moffatt, commanding the battalion, presided, and introduced Lord Charles Beresford, who on rising to speak was received with great cheering. He remarked that it was beginning to dawn upon this country that what we wanted for defensive purposes was a real, practical war training. What real strength meant was thorough organisation, officers knowing their men, and men knowing their officers, and continual training, going over and over again what they would have to do in war, and more training in peace. The more mistakes they had in peace, the less mistakes they would have in war. There was one proposal he hoped that this country would never entertain the idea of carrying through. That was conscription. This was not only a political but a national question. Two English-speaking nations of the world had always depended upon the volunteer army and navy, and so long as we had men willing to volunteer for these services he hoped we should never think of conscription. In these days we should begin by training our youths. He objected to compulsion, but we could and must have compulsion in our schools. Every state-aided school should be compelled to give physical and military training. In the great war now going on in the Far East they saw the difference between thorough organisation, thorough efficiency and thorough training, and bad organisation, no efficiency, and no training.

Our Ladies' Pages.

LADY LONDONDERRY, speaking at the opening of a military bazaar in the Drill Hall, Darlington, to raise funds for a volunteer gymnasium, said that, as a woman caring for the future of our race, she was most deeply interested in physical education, which had been too much neglected since 1870, when the new-found zeal for education arose. It was well that efforts were now being made to train and educate children's bodies as well as their minds. They hoped, by efforts such as that they were supporting that day, that the future generation would be more fitted and better equipped mentally and physically to take up their part in life.

* * *

How much the schoolmistress of the old school thought of the "carriage" of her pupils! Not of the vehicles in which the young ladies drove, of course, but of the carriage of their own pretty forms! One of the first and most important things to be learned by the woman who desires a good carriage is to stand and walk properly. The appearance of the average woman shows that the lesson is not always learned. To stand as do most women—and men, too, for that matter—is an insult to a delicately constructed organism. The spine is curved in at the waist-line, and the body is pushed forward in front. On the contrary, the spine should be allowed to remain as straight as possible, and on the abdominal muscles and the muscles of the back and hips should be thrown the responsibility of supporting the trunk. The chin, chest and toes should be on one line. The shoulder, hip, and ankle-joint should also be on a straight line. The chest is given all possible prominence, and the neck and head are held erect. In walking, the face should be kept over the forward foot, and the habit acquired of actually lifting the body with the muscles designed for that purpose. Another point of vital importance is that of breathing. There are always methods under discussion, each of which possesses enthusiastic advocates. One of the simplest

and most thoroughly beneficial of these is what is commonly known as chest-breathing. By this process the lungs are allowed the privilege of doing the work they were made for. Too great emphasis cannot be given to the necessity and value of proper inhalation. The lungs should be considered first, last, and at all times. One of the objects of physical training is to increase the supply of air breathed into the lungs, and neglect to consider this in connection with all exercises is a serious handicap to successful work.—*Health.*

* * *

Placed at the top of the entrance stairway leading to the Boston Normal School of Gymnastics are these appropriate words of Shakespeare's Cordelia :—

HER VOICE WAS EVER SOFT, GENTLE AND LOW—

AN EXCELLENT THING IN WOMEN.

* * *

AN INTERVIEW WITH MISS HILDA C. THORP.

A short time ago I had the privilege of an interview with Miss Hilda C. Thorp, of Leeds, a lady who has twice secured first place in the All England Championship, under the auspices of the Amateur Swimming Association. There is, at the present time, a deep and increasing interest being taken in physical culture, and especially as it relates to and concerns women. It is difficult indeed to overstate the importance, as it is difficult to estimate the far-reaching effects, of the crusade against physical degeneration, which is being conducted with so much earnestness, vigour, and ability by Eugen Sandow. I need not, therefore, apologise to the readers of SANDOW'S MAGAZINE for inviting their attention to the achievements of one who made a world's record while still in her "teens." Miss Thorp's career of success should act as a stimulus and inspiration to all her sisters who are striving after the true emancipation of woman, by which, I mean, the winning back of those priceless blessings of health forfeited by years of bondage to fashion and convention. Guiltless of any approach to tight-lacing, standing 5 ft. 5½ in. in height, in weight just under 9½ st., Miss Hilda Thorp at twenty years of age is a splendid specimen of womanhood. But above all she is wholly unaffected, unspoiled by successes that would have completely turned the heads of many. Under such circumstances the task of the interview proved altogether easy and pleasant. At the age of thirteen, Miss Thorp received her first lessons in the art of swimming from the teacher of the Ladies' Club. So apt a pupil did she become that in the year following, at the opening of the Guisely Baths, she won a ladies' handicap with three seconds start. A silver watch reminds her now of her earliest triumph. In the following year, 1899, when only fifteen years old, Miss Thorp secured first place in the Ladies' Handicap at the Whitby Regatta. Again in 1900 she secured this coveted distinction at the same place. Two massive silver cups of elegant design witness to these victories. I noticed during my visit a very serviceable bicycle, which, I was informed, represented a first prize at the annual gala of the Ravensbourne Club, held in 1900, at the Westminster Baths. Miss Thorp "cycles" in moderation: walking agrees best with swimming, in her opinion and experience.

Two handsome solid gold medals, suitably inscribed and engraved, tell of victory in 1902–3, in the 100 yards handicap of the Leeds Ladies' Swimming Club. A large timepiece takes us back to a "first" in 1900.

But the great triumph of all remains to be told, namely, the winning of the Open Championship. In 1901, this much-prized honour was obtained by Miss Thorp, who won, after an exciting race, from Miss Hilson, of Jersey, Miss M. Scott, of Bacup, being placed third.

In 1902, Miss Scott, of Bacup, who is

some three or four years younger than her Leeds rival, secured the proud position of lady champion. But Miss Thorp would not be denied, and in 1903, amid much enthusiasm, regained the lost title.

Miss Thorp's best time, it is interesting to note, was against Miss Scott (in, I believe, a friendly encounter, the 100 yards being done in 1 min. 25 secs.

The Challenge Shield of the Yorkshire Ladies' Championship Association has been won five years in succession by Miss Thorp—in fact, ever since its introduction. It is a magnificent trophy, and greets the eye of the visitor as he enters the house.

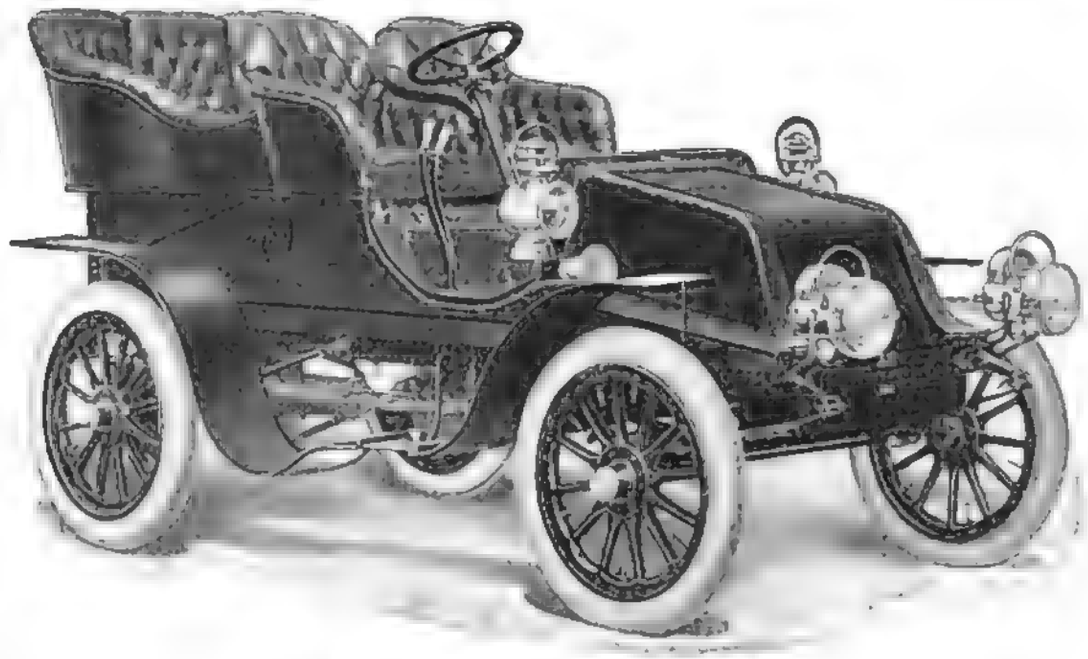
There is still another distinction that Miss Thorp has won. She was a member of the team of six who gained first prize in the Life-Saving Competition open to England.

In conclusion, I may add, that Miss Thorp is a total abstainer, a student of physical culture, not as an end in itself, but like all sensible people, as a means to an end.

Rev. G. P. Horne.

Reviews.

Sports and Pastimes.—Pearson's Popular 1s. Handbooks. Messrs. Pearson are adding rapidly to their excellent series of cheap handbooks on various branches of sport and pastime, and three more volumes have recently made their appearance: Football, under Rugby and Association codes respectively, and Boxing. The latter is by A. J. Newton, who, as most of our readers are aware, prides himself on his knowledge of how to avoid the knock-out blow—to which a chapter is devoted, and from which we learn that Bob Fitzsimmons, in making use of the two knock-out blows—the body blow and chin blow—delivers them with the same hand. The author, however, wisely refrains from imparting too much information as to the avoidance of this blow. The book is well illustrated, contains many valuable hints, and concludes with a brief treatise on Single Stick. Jerome J. Rahilly is responsible for the book on Rugby Football. Mr. Rahilly, who is, we believe, a member of the London Irish F.C., treats his subject in lucid fashion, every branch of the game finding a place under separate headings. The book provides interesting reading. Yet another professional, and last season's captain of the Tottenham Hotspur team, has blossomed out as an author, the name of J. L. Jones appearing on the cover of the book devoted to Association Football, and that he has every qualification to dilate upon the subject no one can deny. Jones has the distinction of having represented Wales in International contests on no fewer than twenty occasions. There is one sentence in the early part of the book in which we are heartily in accord with the author, who, although, perhaps, he considers it a consummation to be desired, would scarcely like to see it brought about. He says, "Every watcher (of football) sound in wind and limb should also be a player." We would suggest that the large proportion of the space (more than half the book) devoted to the rules of the Football Association might have been utilised to more advantage.



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SPORTING PATENTS.

In response to many requests, we have pleasure in announcing that we have made arrangements whereby each month we shall be able to place before our readers a Complete List of Patents relating to all Sporting Appliances.

This List of Patents is specially prepared for SANDOW'S MAGAZINE by Mr. C. F. Ennis, of Jessel Chambers, 88, Chancery Lane, London, W.C., Registered Patent Agent, from whom all further information relating to patents may be had on application.

List of Applications for Patents during September, 1904 :—

19,039. J. Weeks and W. R. Stratton, London. Cricket or hockey ball.
19,043. L. Le Brocquy, London. Oil for lubricating gun barrels.
19,059. W. H. Pike, Liverpool. Targets (complete specification).
19,414. W. B. Bell, Liverpool. Golf or putting clubs.
19,457. B. Zsigmondy and S. König, London. Covers for footballs.
19,638. J. H. Thonger, London. Carrier for artificial flies applicable as a stand.
19,771. R. Thornton, Broughty Ferry. Bicycle golf club attachment.
19,895. W. H. Aston and G. Hastings, London. Golf turf boxes.
19,933. G. L. Jeffries, Birmingham. Shields or protectors for the foresights of small arms.
19,995. R. P. Higgs, London. Golf clubs.
20,038. J. K. Garner, Manchester. Golf putter.
20,150. W. C. Buckelew and J. P. Flournoy, junr., Kingston-on-Thames. Antedated. Means for cleansing rifles, &c. (complete specification).
20,186. W. D. McNeil, London. Tennis racquets.
20,208. J. Carter, Birmingham. Double-barrelled small arms.
20,225. T. Stewart, Glasgow. Golf clubs.
20,331. A. Gray, Glasgow. Race starting machine.
20,408. R. Wheatley, junr., Birmingham. Clip for holding artificial flies.
20,461. T. Goulding, London. Cushions for billiard, &c., tables.
20,519. W. M. Campbell, Glasgow. Targets.
20,623. J. Gouick, Dundee. Handles for golf clubs and putting irons.
20,654. J. Gorst, Chester. Combined horizontal, disappearing and running targets.
20,677. E. Partridge and W. Roberts, London. Appliance to be used in the playing of billiards, &c.
20,825. A. W. Harrison, Stoke-on-Trent. Wind gauge for rifles.
20,919. S. Allcock & Co., Ltd., and A. Williams, Redditch. Artificial spinning bait for fishing.
20,921. A. W. Turner, Birmingham. Targets.
20,959. W. Haws, London. Fishing reels.

List of Specifications published during September, 1904 :—

18,291 of 1903. R. Fiedler, Berlin. Gymnastic apparatus.
21,525 of 1903. C. and O. Wyers, Paris. Joint connections for fishing rods.
21,600 of 1903. S. A. Sisson, Huddersfield. Billiard and bagatelle, &c., tables.
22,174 of 1903. G. Knight, London. Breech-loading sporting guns.
22,954 of 1903. G. W. Rudd, London. Exercising apparatus.
24,852 of 1903. A. E. Terry, Redditch. Physical exercisers and developers.
6,580 of 1904. E. Freyer and O. Engler, Berlin. Device for increasing the speed in swimming.
8,072 of 1904. P. Cruickshank, Edinburgh. Manufacture of golf balls.
9,773 of 1904. R. Appleyard, Wolverton. Golf and other balls.
14,636 of 1904. H. H. Cummings, Boston, U.S.A. Antedated. Target practice apparatus.
17,208 of 1904. P. Cruickshank, Edinburgh. Golf and like balls.

Sir J. Crichton Browne and Physical Culture.

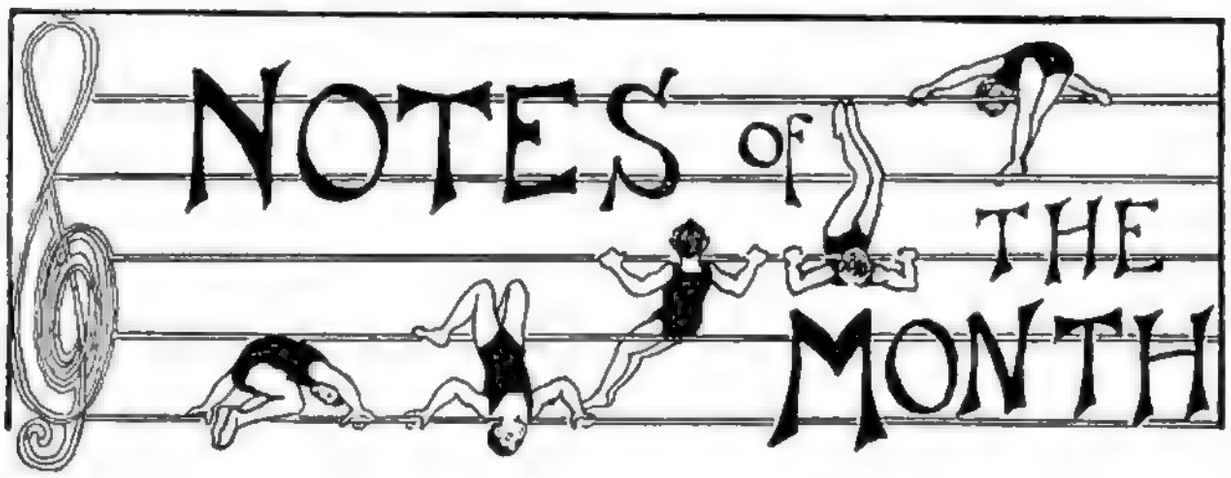
AS president for the year of the Salt Schools, Shipley, Sir James Crichton Browne recently delivered his address to the pupils and their friends at the Saltaire Institute, choosing as his subject, "Some Aspects of Physical Education." Sir James's remarks were both interesting and instructive, for the speaker showed an excellent grasp of his subject :—

"Sir James said that we were still a long way off the perfectly beautiful and virtuous soul in the perfectly modelled and vigorous body which was the ideal of education. He proposed to restrict himself to that part of physical education dealing with the influence of muscular movement or exercise of various kinds.

"Physical education began with the handling, the tossing, the caressing of the baby by its mother. These movements not only aided digestion, but stimulated the skin and the circulatory system, and evoked responsive movements. These movements were, he believed, essential to the infant. In foundling hospitals it had been found that where the baby was put into its crib, and just picked up every two hours and fed, apart from any infantile complaints, it dwindled away. In an institution in Naples, out of 900 infants admitted 885 died within twelve months—due in some measure to deprivation of mothering. Of course, feeding was the primary consideration ; but it was not everything. If muscles and motor centres were left lying dormant too long, they could never afterwards make up for the lost time. It might sound like superstition, but he was satisfied that there was a mysterious bond between the mother and the child, apart from natural nourishment, which made for righteousness in a physiological as well as an ethical sense, and from which, when it was broken, no efficient substitute could be found. The employment of women in factories put a limit to mothering in certain classes in these days The *crêche* was inevitable, but it must be better managed than it had hitherto been. It might be converted into a school of domestic economy, girls over fourteen years being admitted to it to be instructed in the feeding and management of infants about which so few girls knew anything. The natural exuberant energy of the young, regulated and conducted into proper channels, would provide excellent physical education up to seven years of age. Against formal physical education he had not a word to say. As its advocate when it was much less talked about, he was there to praise it, but, at the same time, he could not but fear that it would be carried too far. We must needs now be taught to breathe, and shortly, perhaps, we should have a syllabus instructing the heart how to beat, and laying down rules to be observed by 'little Mary' in the different steps of digestion. The child, the speaker went on, should not be cooped up in school and screwed to a bench until after it had reached five years of age. Even then there should be no formal physical drill, but frequent kindergarten games.

"Discussing the report issued lately by the Inter-Departmental Committee appointed to inquire into the alleged deterioration of certain classes of the population, the speaker said that the committee did not venture to say that progressive deterioration was not going on amongst the people generally, but only that the grounds for the apprehensions entertained were insufficient. For the last fifty years we had been ameliorating in hundreds of different ways the condition of the people. The country ought to be growing healthier and happier, life ought to be better worth living. If decisive betterment could not be reported, then powerful deteriorating influences counteracting all our ameliorative labours must be at work, and our situation

was parlous. The death-rate had fallen from 21.9 per thousand of the living n 1852, to 16.2 in 1902. The price of food had diminished, the rate of wages had risen. Improved sanitation had largely diminished the ravages of many prevalent diseases, and water supply had improved; the standard of cleanliness had been raised; Factory Acts had limited the hours of labour and the ages of the workers, and had improved the conditions under which their work was carried on. On all hands there had sprung up hospitals, asylums, sanatoria, night shelters, orphanages, soup kitchens, and other institutions to assist and rescue persons; while trade unions, friendly, building, temperance, and other societies had brought increased comfort and independence to the working classes. Yet we still had on our hands crowds of lunatics, idiots, cripples, inebriates, paupers, criminals, and hopelessly diseased persons, and no one could say that the physique of the working classes in our large towns was satisfactory, or indeed anything but deplorable. While the death-rate had been decreasing, the infant death-rate had not decreased, and the fall in the death-rate of all ages beyond thirty-five had been little or nothing. Indeed, at some ages beyond forty-five, both of men and women, the death-rate had actually risen. The death-rate as a whole had fallen and was falling, and the prospect of life for the community at large, therefore, had improved. But length of days was not everything. The standard of health had been lowered, the fertility of the race was diminishing, spectacles were more in evidence than they used to be, deafness interfered in some degree with the educational progress of from ten to fifteen per cent. of the children in our elementary schools, and the decay of teeth was all but universal Speaking of the recommendations of the Inter-Departmental Committee, Sir James observed that there was not the slightest reference to what he regarded as the essential element in physical education. That was its influence on cerebral development and mental manifestation. Having dealt in a graphic and interesting way with the action of the motor centres of the brain, Sir James said that a brain that was to be serviceable must be used and well used, and every brain centre should also be well used. If one of the centres were not used at all it would undergo degeneration, and if imperfectly used it remained weak and sluggish; while if excessively used it became irritable and unstable. This just use of every brain centre necessarily implied the just use of the bodily organs with which it was connected. It was essential to the welfare of all motor centres that they should be used singly and in combination in an active and varied manner. Physical education, to have a full measure of success, must have regard to the order of development of the brain centres, and so adjust and time its operations that each group of centres might be brought into play in due season. As time went on he believed we should have a scientific gradation of physical exercises, corresponding with age, periods, and stages of cerebral evolution, although no doubt such a gradation was to some extent in existence already. Referring to the group of motor centres connected with the hand, Sir James said that the nascent period was probably from birth to the end of adolescence, and its most active epoch was from the fourth to the fifteenth year, after which the centres in the majority of cases became rather fixed and stubborn. Hence by leaving children all that time untrained to any manual efficiency, we should be doing our best to abolish the skill of our next generation of workers, and thus imperilling our industrial position. Every boy, no matter what his social position or prospects, should learn some handicraft, and every girl should be taught to use her fingers deftly. Every British boy and girl should be taught to swim, to go up a rope hand over hand, and to come down hand under hand, as these were life-saving exercises, and defences against fire and water.



Dental Deterioration.

A naval surgeon writing to one of the medical journals on the connection between physical degeneration and dental degeneration observes that the teeth of Negroes, Malays, Chinese, and Japanese are vastly superior to that of the ordinary European or American. The European and American are of course, he says, handicapped by the obsession of civilisation; but in spite of this the masses are less careful to cleanse their mouths after eating than are the Orientals and Negroes. In addition to careful cleansing of the mouth these uncultured people are almost constantly chewing sugar-cane, betel-nut, or other detergent; and it is the first of these, sugar-cane, that he considers a remedy by means of which dental caries might be very much diminished. All that is required is to implant in the British palate the taste for sugar-cane, which, "besides being of benefit to the teeth and musculature of the jaws, might also obviate the occasional bad results of eating the many coloured atrocities sold as sweets." It is an interesting proposition, though one is not quite sure what the naval surgeon means by the obsession of civilisation, but it is very doubtful if the practice of cane-chewing would arrest the decline of the teeth of the civilised races. It is at least as probable that the decay of teeth is the result of physical degeneration as that it is the cause of it. In the vicious reactions of teeth on digestion and of digestion on teeth no one can say quite where the trouble begins.

Jewish Athletic Association.

The Jewish Athletic Association, which has hitherto only catered, in its arrangements for organised competition in the various branches of sport, for lads and young men who have left school, has now formed a schools division. Football and cricket matches have from time to time taken place between various schools, but no attempt has hitherto been made to arrange organised contests on days other than Saturday, when matches between schools attended by other than Jewish children have usually taken place. At present ten schools, wholly or almost wholly attended by Jewish children, have expressed their willingness to join the new organisation, viz., the Jews' Free, Stepney Jewish, Gravel Lane, Old Castle Street, Chicksand Street, Commercial Street, Deal Street, Old Montague Street, Settles Street and Berner Street Schools. If the division is a success it is hoped to increase this number. The schools division of the Jewish Athletic Association will be affiliated to the Tower Hamlets Branch of the London Schools Football Association, the winning school competing in the semi-final, and, if necessary, the final matches with the "Saturday" schools. The promotion of other

branches of athletics will also, it is anticipated, be undertaken by the newly-formed branch of the parent body.

Commenting on this new movement, the *Jewish Chronicle* says:—

The formation of a Schools Division of the Jewish Athletic Association, which we announce elsewhere, is altogether an excellent step. The Association has, it is true, from time to time, made small grants to certain schools with a view to the encouragement of athletics among the boys, but no organised attempt has, we believe, hitherto been made to foster outdoor sport amongst our Jewish boys whilst still at school. The cramped, unhealthy condition of many of the homes in which boys in the East End of London and elsewhere live make it increasingly necessary that some adequate provision should be made from their earliest youth for participation in healthy outdoor pastime. "Mens sana in corpore sano" is still as necessary a combination as when Juvenal gave expression to the admirable phrase. The subject of making some effort to counteract the influence of conversionists on Jewish children has received considerable attention of late. We can conceive no better means of protecting the boys, (and girls, too) who meet many temptations, than the provision of some useful outlet for pent-up energy which should at the same time strengthen their limbs and improve their physique and keep them out of mischief. We hope that hockey and other games for the girls, and swimming for them as well as the boys, may be added to the programme of the branches of athletics which the Association will endeavour to foster. We are glad to note that competitions with schools not attended by Jewish boys will be arranged, for the promotion of a healthy spirit of emulation in this regard cannot but make for good. The trifling sum of £50 which is asked to carry on the work of the new body for its first year of existence should be forthcoming without difficulty from the Jewish community, which so readily subscribes many times that amount for other institutions.

Servia's Strong Man.

At the recent Olympian games in Karlsruhe, a Servian named Radoilovitch got the Prince Max prize of honour for heavy-weight throwing. With one hand he can lift a 170-lb. weight above his head, while with both hands he has been known to raise 216 lbs. He can bend a five-shilling piece between his fingers, and tear a pack of cards in two at one wrench.

* * *

"How well the minister dances!" said a Scottish hostess to one of the sterner sort of elders. "Yes," was the reply, "he has been educated at the wrong end." The Board of Education is not in future going to take so restricted a view of its duty to the youth of this country, for it has taken a step preliminary to placing physical education on the elementary code. What it ultimately means as a factor in the national well being a moment's consideration will reveal to any who realise the situation as it exists in some of our elementary schools.—*Bath Chronicle.*

* * *

To the Editor SANDOW'S MAGAZINE.

Pembroke Dock.

Sir,—In your September issue you have an article headed "The All-Round Athlete," mentioning many past and present, to whom, I think, should be added our Welsh champion, Mr. Bert Wickham, late of Cardiff. Mr. Wickham has been a reader of your Magazine for about four years and states that he owes his present success to your excellent publication. The following particulars of his career may be of interest to your readers:—

Bert Wickham, the Welsh athlete and champion wrestler, has a wonderful muscular development. His boxing is really very clever, his fine footwork being most noticeable, and he can *hit* hard. He is the Champion American Ball Puncher and holds many gold medals for this branch of exercise, whilst he has, in different branches of athletics, won over £350 in prizes. He is the Welsh Champion Wrestler, and has never

been defeated. He has beaten American, Scotch, Irish, Lancashire, and London champions, and Murphy, the Champion of Malta. Up to this season Wickham was one of the best known racing cyclists of the day, victories over Welsh, English, London, and Yorkshire champions standing to the credit of this wonderful young athlete. At the High Jump, Wickham can clear 5 ft. 4½ ins. He is also a fine sand dancer and American wooden shoe dancer, a good runner and an excellent walker. Wickham is marvellously strong, but is not a great believer in heavy weight-lifting. In his performances are the following feats of strength: He breaks a large size horse shoe with his hands; does an ordinary dumb-bell exercise with two ½ cwts., one in each hand; tears with the fingers two and a half packs of playing cards; tears a lawn tennis ball with the fingers, and writes his name on a black-board with a ¼ cwt. suspended to the middle finger. He also gives exhibitions of ball punching, boxing, and he offers a gold medal to any wrestler he fails to throw in 15 minutes. He is only 21 years of age, stands 6 feet, and weighs 13 stone. His measurements are: Chest, 44 ins.; neck, 17½ ins.; biceps, 14½ ins.; forearm, 13¼ ins.; thigh, 25 ins.; calf, 17½ ins.; wrist, 8 ins. Wickham is of Scotch descent but has been brought up and learned all his athletics in Wales.—Yours, &c.

J. E. Jenkins.

Dr. Macnamara's Scheme.

"The question which the Londoner has to ask himself is whether a very large part of the present expenditure of 1*s.* 2*d.* in the pound is to be allowed to run to waste because of the starved condition of the children in the slum schools, or whether he will spend another three farthings so that the education he pays for may have a chance of taking root in a well-nourished brain."

That, according to Dr. Macnamara, M.P., is a question which must be answered, and answered quickly. He has had an intimate experience of elementary schools in all parts of England during the past thirty years, and though he started with the belief that voluntary effort would be sufficient to meet the case, he was irresistibly driven to the conclusion that the feeding of school children whose parents cannot or will not provide them with proper nourishment must become a public obligation.

"Practically," says Dr. Macnamara, "this is the unanimous recommendation of the Royal Commission on Physical Training in Scotland of last year, and of the Departmental Committee on Physical Degeneration in England and Wales which sat and reported this year.

"Those who, like myself, advocate public responsibility, are met with the objection that it would undermine parental responsibility. It would do nothing of the kind. The present voluntary system certainly errs in that direction.

"Everybody agrees that the children must not go hungry. Very well, then, if a parent cannot make provision, as the result of ill-health or misfortune, he must be assisted out of a public fund, without any suggestion of pauperism.

"Supposing that he can make provision, and will not, because of thriftlessness or intemperance, he must be punished. By a very slight amendment of the Cruelty to Children Act or the provisions of the Education Acts which compel attendance at school he can be proceeded against.

"This is the system I would advocate. You can leave the great part of the area of London out of account as not needing any treatment in regard to this matter. I would schedule the poorer parts and link together half a dozen of the schools in each.

"The town hall in the borough would probably be available as a dining room. Books of coupons would be issued, and the parent would apply for them at the municipal office. If he can pay for them he must. If he cannot he gets them gratuitous. Supposing the parents don't apply, the coupons are supplied direct to the children by the

teachers, and if necessary the parents are prosecuted. Thus all school children would be sure of at least one square meal a day.

"I don't claim any originality for this plan. In its essentials it is the system in vogue in Paris and Brussels and some other Continental cities. Paris works it for £70,000 a year. Of this sum £45,000 comes out of the rates, £20,000 by the sale of coupons, and the rest from voluntary subscriptions.

"What is wanted is that local authorities shall have power to spend money for this purpose, and already a large number of the new authorities have passed resolutions in favour of this reform. We intend to press the matter vigorously in Parliament next Session."

* * *

A writer in the *Revue des Deux Mondes* on physical degeneration states that anthropologists generally divide the nations into four groups. Of these, "tall" includes, amongst others, the English, 1.703 mètres; Scotch, 1.710 mètres; Scandinavians, 1.713 mètres. The second group, "above middle height," includes the French, 1.650 mètres; Russians, 1.660 mètres; German, 1.677 mètres; Belgians, 1.684 mètres; Irish, 1.697 mètres. In the third group, "below middle height," are the Chinese, 1.630 mètres; the Hindus, 1.642 metrès. In the fourth group, "short," he puts the Malays, Laps. Going back to the most remote date at which measurements are possible, the writer states that the stature of men has undergone no appreciable change.

The Breath of Life.

Whilst twenty ounces of food and a few pints of water will supply the needs of the body in this direction for one day, during the same period it requires 30,000 pints of air.

The delicate machine which this volume of air enters is said to contain over 700,000,000 air cells, or little workshops. Into the walls of these there flows, like the sewerage of a great city, the foul, venous blood of the body. In these remarkable workshops it is quickly transformed into a rushing red torrent filled with life-giving oxygen from the air.

A Successful Athlete.

Many readers of SANDOW'S MAGAZINE will be interested to hear of the success of C. Stanfield, of the Herne Hill Harriers, and late of the War Office, who was running very strong previous to taking up a new appointment in Vienna. One day, recently, he won the following races—all from scratch:—100 Yards, in $10\frac{3}{5}$ secs., breaking the Austrian record by $\frac{1}{5}$ sec.; 220 Yards, and the 440 Yards. His team won the relay race, and he also took throwing the cricket ball. In the same afternoon he played in a football match and scored three goals—a very good day's performance. He has also played in four football matches, in which he has scored seventeen goals himself.

* * *

In a letter to a Liverpool correspondent on the question of the physical deterioration of children, Sir John Gorst, M.P., writes as follows:—"It seems to me that there are three main causes of the malnutrition of children—(1) ignorance; (2) neglect; (3) poverty. I am not aware that I have ever attempted to determine what proportion of the evil is assignable to each of these causes respectively. I don't think there is any sufficient information available to enable this to be done. By putting the causes in this order (as I did at Leeds) I do not imply that one is more important than another. Social reforms should aim at the extirpation of all three."

Physical Education in Leeds.

Classes in physical education have been inaugurated in connection with the Leeds Institute of Science, Art, and Literature, and the session commences on Monday.

The classes will be held in the gymnasium attached to the new School of Art. Mr. H.

Gregorius Brown, who has been engaged as head teacher, is a member of the British College of Physical Education, London, and is certificated in hygiene, physiology, and anatomy. There will be two assistant teachers, Mr. Hugh Peat and Miss Mabel L. Fry. Miss Fry is also certificated in hygiene, physiology, and anatomy, and is a licentiate of the British College of Physical Education. There will be classes for ladies and gentlemen on Mondays, Tuesdays, and Thursdays.

Gymnastic classes for young men, and physical exercises and recreation for boys and girls, are also being instituted.

* * *

At the annual meeting of the Carnegie Gymnastic Club, held in the new gymnasium at Dunfermline, Dr. Tuke, a member of the Trust, who presided, stated that the physical training of the town was now under one control and one system, and took in the children in the primary department of the schools, and until they left the schools. They could then join the numerous voluntary classes at the gymnasium. They were arranging for monthly competitions, which would keep the interest healthy.

The Anti-Cigarette League.

There are now 700 members of the Leeds Anti-Cigarette League. The rapid growth in membership has been stimulated by the fact that in the neighbourhood of the city there have recently been two cases of death directly traceable to the excessive smoking of cigarettes.

The campaign promises abundant success, especially as Dr. Forsyth, headmaster of the Leeds Higher Grade School, is taking a prominent part in its promotion. He holds very strong views on the pernicious habit of youthful indulgence in the cigarette, though he says a very strict discipline is exercised on schoolboys in Leeds.

"It is," he says, "between the ages of ten and fourteen that the evil habit is mostly fostered, for it is then that home influence often loses its power. Parents are largely to blame in that they neglect to impress upon their boys the danger of excessive smoking, and to inculcate habits of spending their money on intellectual pursuits, so as to become fitted for the battle of life."

A New Journal.

The first issue of *American Gymnasia and Athletic Record* is to hand. It is a monthly journal published by the American Gymnasia Company, of Myrtle Street, Boston, Massachusetts, for physical instructors and others interested in practical physical development, its fundamental purpose being to give news of physical training, and to emphasise the best feature of gymnastics, athletics, and allied subjects. The field is a large one, and judging from the initial number, the journal, which is produced in a style which does credit to all concerned, will provide a much needed stimulus to the subject in all parts of the world. The staff and board of advisors is most representative of physical education in America, so that this latest arrival starts under the happiest auspices.

Hygiene.

The annual report of the Board of Education has the scheme of a proper study of hygiene very prominently before it. It has recognised, in a practical spirit, that the physical condition of the child in elementary schools is the real point at issue in the discussions upon physical deterioration. Such as the children are to-day so will be the race to-morrow. And if the parents are ignorant and careless, their duties to their children will be carried out perfunctorily, or their charge neglected. The new system places upon the teachers in schools the responsibility of parents; but enjoins the training and knowledge that will enable them to fulfil that responsibility which parents have evaded. The future teacher will have to acquire knowledge of the laws of health, that she may observe the bodily and mental health of the childen under her care;

may be able to recognise the signs of defective nutrition, deviations from normal physique, defects of breathing, sight, and hearing, and notice the signs of physical and mental fatigue. It will be noticed that it is considered highly desirable that the teachers upon whom rest the duty of such important care should be women who have not merely received a special professional training, but are also of good general education; and that the instruction of women students should be placed in the hands of fully qualified women. The future possibilities of this system are great. It will be in the power of the teacher to report parental neglect and insufficient feeding to the proper authorities, so that such neglect may have due cognisance taken. It will also be in her power to modify and adapt the work in accordance with the receptive powers of the child; and to prevent the injury to the intelligence of individuals by the rigid rules of general teaching.—*The Guardian.*

Ills of the Corset.

An American journal has set forth twelve reasons for discarding the corset, as follows:

(1) It lessens and sometimes ruins the digestive powers.

(2) It restricts development of the lungs to almost half their normal size.

(3) It destroys absolutely the normal power of breathing.

(4) It ultimately injures and makes shapeless, flaccid and nerveless the flesh of the waist line.

(5) It destroys the beauty lines of the body, of the limbs, arms and bust by restricting nourishment, by interfering with normal circulation, and thus lessening vital power, and by the continuous and unnatural support of the bust in an abnormal position.

(6) It is absolutely, in most cases, the direct cause of weaknesses peculiar to women, from which every corset wearer suffers at some time in her life.

(7) It greatly weakens, sometimes destroys, or makes abnormal, the instinct of sex.

(8) It produces tumors and the inflamed condition from which women so often turn to expensive and dangerous operations.

(9) It causes serious displacement.

(10) It prevents the return of the venous blood from parts below the waist line.

(11) It weakens and sometimes kills unborn babies.

(12) It is one of the principal causes of marital miseries and divorces.

Dr. Adler on Physical Deterioration.

In an interview published in *Tit-Bits*, the Chief Rabbi expressed the following views on the physical deterioration problem:—

The main causes of our physical troubles are parental carelessness and neglect of laws of health induced by ignorance and poverty. The remedies, therefore, are primarily the creating and deepening of parental responsibility. It is reported that Jewish children are taller and healthier than any others. I doubt whether this is so. But it would seem that ordinary Jewish children are equal in physique to the best type of the non-Jewish. The principal Jewish method for preserving health among the poor includes greater care of mothers during the period of child-bearing. As Jewish mothers are not, as a rule, wage-earners, they are better able to attend to the duties of home life. Jewish children are also better cared for during infancy, and enjoy the benefit of maternal feeding for a longer period. I do not quite agree with the statement that the Jewish people as a race enjoy better average health than Christians. But the fact that the Jewish people have survived despite the terrible persecution and inhuman oppression they have endured is due to their temperance and their obedience to certain dietary and hygienic laws. Yes, we should have a Government Bureau of Health, and one of its first duties should be to distribute little booklets among the women of the poorer classes giving the simplest rules for cooking. For our physique is not hurt so much by unwholesome food as by bad cooks.

How Errors Occur.

"A little knowledge," etc., applies most admirably to some of the members of the Borough Education Committee of Penzance if the following extract of a report of their deliberations, as taken from a local paper, is correct. It only shows what those who desire to bring about an improvement in the national physique have to tolerate. It was on the question of school management that

"Mr. A. K. Barnett took exception to the clause relating to physical exercises, and asked if they thought it was necessary in a district like theirs that physical exercises were necessary for the development of pupil teachers. He wanted to know why every fad should be thrust on the educational authorities, and considered that it was becoming a serious matter, and one that should be reckoned with. As far as he was concerned personally he hoped that the County Council would never permit the establishment of such clauses in their midst. The exercises, he contended, were not necessary for their fathers, who were as fine a set of men as the world produced; they were not necessary for the present race of men, and why should they be necessary for the pupil teacher of the present day? They were pandering too much to the pupil teacher, and it was time somebody protested in the interests of economy. It was better some of those pupil teachers learned to use the dust brush. The physical exercise that they needed in Penzance was that they should be in their own houses at 9.30 at nights, and that they should get up at 7 o'clock in the mornings and have their first lesson at that time, in the same way as they used to go. Then they would have a better race of people and better education. He should strongly oppose the proposal both there and in the County Council, and should endeavour to prevent the latter body squandering the ratepayers' money upon such fads. They should let pupil teachers understand that they (the authority) were spending money for their education, and that they must devote their ability to acquiring the education which was offered.

"Mr. W. J. Bazeley sympathised with Mr. Barnett, and said it seemed a great waste of time and energy that they should have to train their teachers in calisthenics. Living in a climate such as they enjoyed, and beside the sea, one would think these conditions would tempt them to teach their children swimming, which was a better exercise than any given in the pamphlet shown.

"Rev. C. F. Rogers thought the report sent to the Board of Education upon physical deterioration suggested that action of theirs, as they saw the immense importance of having a healthy body to contain a healthy mind. It was a great mistake to regard the education of children as a matter of simply training their minds; they should also develop their bodies in the most healthy way possible. If they looked at some of the specimens turned out from schools in the town they would see there was a great deal of room for physical improvement. Mr. Barnett, however, had mistaken the object of the resolution, which had nothing to do with pupil teachers. The idea was that the teacher should be sufficiently instructed to carry out a proper form of physical exercise. In many of the schools they had as part of their syllabus some sort of physical drill, and the object of the department was to have a uniform system throughout the country, so that children who were delicate might not be taught to do exercises harmful to them. The expense would not be great, because once the teachers had learned the system they would be able to teach it wherever they went."

* * *

To lay down a set of rules is one thing; it is quite another matter to see that these rules are intelligently and conscientiously obeyed. The gentleman entrusted by the Government to look after physical training in Glasgow district—Captain Foster—has, since entering upon his work, shown that he has a high ideal of the duties and responsibilities of his position. It will not be his fault if

there is not soon apparent a great improvement in the physique and deportment of the boys and girls. One fault in the teaching of physical exercises is that, too often, children are grouped according to the educational standard they have attained, and not according to physical fitness. For example, a little fellow who, by sharpness of wits, has progressed at a great rate, is expected to take part in exercises along with boys much bigger than himself. The remedy is to classify children by their physical capabilities. This is done in the High School of Glasgow, where eyesight, hearing, chest measurement, etc., are carefully noted, and the pupils grouped and instructed accordingly. It is this system of measurement and careful noting of physical defects that the Captain is anxious to have adopted in all schools, and most thinking people will join in hoping that his desire may soon be gratified.

A Sandow Pupil and the City Marshalship.

Included amongst the six candidates selected from some hundreds of applicants for the office of City Marshal, was Capt. (and Dr.) Bernard C. Green, one of the most famous athletes of modern times. In addition to holding the Sandow Gold Medal, Mr. Green won the 100 Yards Flat, 120 Yards Hurdles, and Long Jumping Championships of Scotland in the year 1891; as the winner of several events in the United Hospitals Challenge Shield Competitions of 1890 and 1891 he was in St. Bartholomew's successful teams; and on several occasions he won the London Athletic Club's Challenge Cups. Mr. Green still has a seat on the committee of the L.A.C. In skill at arms, and horsemanship also, Mr. Green has had considerable success. He is a past winner of the Atherstone Hunt Cup at Leicester, the Ballygunge Steeplechase at Calcutta, and is a member of the Meynell Hunt. As a linguist speaking Hindustani, French, Dutch, and German with fluency, and in the matter of ceremonial, Mr. Green, if appointed, should be particularly useful. While in India he had much to do with organising entertainments to His Royal Highness the Archduke of Austria and their Highnesses the Maharajahs of Cashmire and Gwalior. The final selection had not been made when we went to press.

Sir Lauder Brunton and America.

Sir Lauder Brunton, the famous physician, who has just returned from America, whither he had gone to deliver a lecture, has been interviewed by a representative of the *Morning Leader*. Sir Lauder has, of course, been one of the leading spirits in the "Physical Deterioration" agitation in this country; and while in the United States he kept a pair of sharp eyes and brought a scientifically-trained intellect to bear on questions of American physique.

To the *Leader* representative he said his impression was that the Americans are not physically superior to ourselves, though they are certainly not an inferior race.

Great attention is being given to physical culture in the American universities. But what struck Sir Lauder more than anything else was the disappearance of what has hitherto been regarded as the Yankee type.

"The long-faced, lanky American, the man whom we are accustomed to see caricatured in English prints, seems to have gone. President Lincoln was a specimen of the old type. But now the American features appear to have changed. This is not my own opinion only; it is the feeling of many others. But what the cause of the change is nobody knows."

Sir Lauder Brunton has been greatly impressed with the power and the strength of the United States; and his whole manner in referring to this question showed how deep that impression was. "It is a big country," he said, "a country of tremendous possibilities. What struck me was the size of the cities, and the energies of the population. Since I was out there last—some 28 years ago—small towns have grown into enormous

cities, and America bids fair to become the leading country of the world.

"In my opinion, a tremendous struggle for supremacy is coming between the Anglo-Saxons, the Slavs, and the Yellow man; and what the result will be I do not know. But I do think that, in view of what is likely to happen, we should cultivate to the utmost our friendly relations with the States. The Anglo-Saxon race must hold together. It is said that Abraham Lincoln once asked what was to be done with certain rebels of the Southern States. 'Shall we hang them?' he said. 'No; let us hang on to them,' answered his boy. That must be our attitude towards the Americans. We quarrelled with them once. Let us hang on to them now. If the two Anglo-Saxon States do not hold together, they will be driven to the wall by the Slav and the Yellow man."

Sir Lauder Brunton is full of the hearty cordiality and hospitality of the Americans. He could not help noticing, too, the extraordinary resemblance between parts of their country and parts of England, the differences between them being smaller than could be found among some of the States themselves. The resemblance, he thinks, is particularly obvious in the case of the city of Boston.

* * *

We have just received a copy of the current number of *The Auto Era*, an American publication emanating from the Winton Company at Cleveland, Ohio. It is a most instructive and entertaining publication, which should be in the hands of every one who takes an interest in motoring, for it is well illustrated and contains much valuable information. It can be obtained post free on application to the headquarters of the Winton Company in England, at 48, Holborn Viaduct, E.C.

* * *

At Frankfort-on-the-Main during the past summer 4,027 boys and 2,285 girls availed themselves of the opportunity of learning how to swim. They met in 74 divisions. At the end of the summer 2,065 boys and 876 girls were able to swim. Shower-bath facilities are in 15 boys' schools and 12 girls' schools, where, during the last year, 95,720 baths were given to boys, and 51,283 to girls.

WANTED--CORRESPONDENTS.

Feeling that some more direct means of mutual intercourse amongst physical culturists throughout the world is most urgently required, we have decided, with the commencement of the new year, to devote a certain amount of space in each issue to the chronicling of the doings of clubs, societies, etc., throughout the world. To enable us to do this we must invoke the co-operation of our many friends in all parts of the two hemispheres, and ask them to assist us by forwarding a brief account of their doings each month. These should reach us not later than the 12th of the month to insure insertion in the forthcoming issue, and should be addressed to the Editor, 131, Temple Chambers, E.C., those inserted being paid for at the usual rates.

SPORTING SPECIALITIES.

In these columns we propose introducing to our readers the latest developments and innovations in the way of sporting implements, etc., particulars of which we shall always be pleased to receive.

As the autumn and winter months usually bring with them dirty roads, which are alike dangerous for man as well as animal, it is with pleasure we note for the motor-travelling public a new Non-Skidding Cover, both for the motor and motor cycle tyres, which is not only an advantage to prevent side-slip, but also prevents puncture, with additional advantages that it is detachable, and can be used with the very old and unsafe tyres, which our motor readers will not be slow to discover that their tyres can be used considerably longer with this protection.

From the opportunities we have had to view this new patent on the premises of Messrs. A. W. Gamage, Ltd., Holborn, it certainly is one of the greatest improvements we have seen. It is cheaper to purchase one of these than having the tyres re-rubbered,

which is a great consideration. Our readers will be able to judge for themselves by the illustration given above.

There are some of our Stock Exchange friends who have been complaining for some months past of the slackness in stocks and

shares, but they have not been forgotten by the providers of sport—at least, for those who wish to fill up their spare time. The new Card Game we have had sent us is most properly named "Bulls and Bears," or "Contango."

This game can be played by two or more persons with two packs of "Bull and Bear," or "Contango" cards, each containing four stocks numbered respectively: 1 (Bear) to 10 (Bull), inclusive.

The game can be played for counters or coin. The dealer takes one pack of cards (intact) and hands the other pack intact to the player on the left.

It has the advantage that it can be played with or without a pool, and, judging by the casual game that we have played, it certainly appears that as the card-playing season advances so will the popularity of the game.

It can be purchased from Messrs. A. W. Gamage, Ltd., Holborn, by those who wish for a new and pleasant card game.

AND EDITORIAL CHAT

ALTHOUGH I have opened these pages for the purpose of coming into closer touch with my friends and readers, you must remember that space is limited, and I *cannot* prescribe courses here.

The attention of my readers is called to an announcement on page vii of advertisements.

All communications relating to Instruction by post should be addressed to me at Basing House, Basinghall Street, E.C., and these will receive prompt attention.

Ordinary replies cannot be answered by post.

X. Y. Z., Blackheath.—From your letter I conclude that you are in the habit of taking a bath at night. Reverse the order of things and take one lukewarm each morning; then report progress.

A. R. Turing, Stroud Green.—I am afraid to answer you fully would occupy far too much space, but in the revised edition, which is now in the press, all the points at issue are fully and lucidly explained.

J. P. Benn, Middelburg.—I have no means of referring now to the particulars you desire, and so much time has elapsed that the facts have quite escaped my memory. I will bear your request in mind, however, and endeavour to give you the necessary information.

E. F. W. Jayrevardine, Colombo.—By the time this reaches you your wish will have, no doubt, been gratified. However, I may say here that there is no objection to your making extracts, providing the source is acknowledged.

J. Jobson, Swindon.—*Daily* systematic exercise under proper supervision is all that you require. Why do you not take my course of instruction by post? Write me at 17, Basinghall Street, E.C., for full particulars.

F. W. B., Leyton.—A great deal depends on circumstances. In many cases, no, but it is always advisable to take expert advice.

W. T. Austin, Forres.—Thanks for photo and measurements, which show excellent development for so short a period. I trust you will let others know what benefit you have derived.

L. Palfrey, Manchester.—Continue the exercises with dumb-bells and developer, but take your plunge with just the chill off.

Ambitious, Bakewell.—My Anthropometrical Chart gives all the information you ask for. Briefly, the answers are (1) upper arm, forearm, thigh; waist wants reducing. (2) See previous answer. (3) Exercise will power.

S. Norton, Calcutta.—Write for my new book on "Body Building." The new edition of "Strength, and How to Obtain it," will be ready very shortly.

J. McGinley, Dumbarton.—I think you are in error in your postscript. The article you mention has not appeared in this Magazine, but I fancy I have read some such statement elsewhere. I agree with you, and note with pleasure the resolve contained in the first part of your letter.

F. E. Dorchester, Lower Edmonton.—Many thanks for your interesting letter and photographs, which I propose making use of in another part of the Magazine.

J. Eckstein, Maryborough.—Thanks for your letter, which you will find reproduced in this issue. Glad to receive photos, and shall be pleased to hear from you again.

H. Thirkill, Leeds.—I regret that, much as I should have liked to do so, the photos do not lend themselves to reproduction, but should be pleased to publish some facts concerning the team if you care to supply them.

F. W. S.—I never care to advise in such cases as yours through these columns; in fact, make it a rule not to do so. It all depends upon the extent of the injury how far you can go with exercise. If you cannot attend one of my schools, can only recommend a course by post.

J. Reid, Bushey.—The morning is much preferable in your case. Exercise in moderation every day is much more satisfactory. You do not give your height, but from your measurements should say that more attention to the lower part of the body is necessary.

T. Shepperson, Nottingham.—Thanks for photos and good wishes.

T. Dunkin-Lee, Slough.—You have evidently misread the article in question. Look through it again and you will see that Dr. Pryce-Jenkins is quite correct. Will note your suggestion.

Chas. J. Owen, Cape Colony.—Hope to make use of your interesting communication in the near future. The results are excellent.

J. M., Stirling.—You are certainly making good progress and should continue. (1) I never recommend weight lifting. (2) According to your measurements there is an increase of one inch in chest expansion. Breathing exercises will accomplish it.

W. J. Cole, Normandy.—An occasional letter would be most acceptable—see my notice in another part of the Magazine.

C. G. Clark, South London.—There is little or no strain from using the developer, which would suit you exactly at the present time. Take plenty of nourishing foods—Plasmon, in its various forms, particularly.

*** Several replies have had to be held over until next month.

TO THE TRADE

. . AND . .

OUR READERS.

We have arranged to Publish our Magazine from the same address as our EDITORIAL OFFICES, and we trust this will be to the advantage of all.

So please NOTE that on and AFTER the publication of the DECEMBER NUMBER, ALL communications should be addressed to

131, TEMPLE CHAMBERS, TEMPLE AVENUE, E.C.

NERVOUS EXHAUSTION

EVERYONE should occasionally take stock of the amount of NERVE FORCE which remains after arduous mental or physical labour. Hold a glass of water quite full at arm's length and observe the vibration. The fact is we live too fast, in the present age we draw cheques on the bank of life recklessly, without enquiring as to the state of the account. We have small breakdowns, we recover, we repeat the abuse of nature. We fail to replenish the overspent power, until finally the undertaker puts paid to the extravagance. If we can keep up the supply of NERVE FORCE we can go on with increasing energy and attain brilliant success. You can generate energy and nerve force by the use of COLEMAN'S PILLS, composed of PHOSPHORUS, QUININE, AND PEPSINE, the greatest combination of beneficial elements for the assistance of nature.

INFUSION OF NERVE POWER.

If you are suffering from Nervous Debility and require bracing up—pulling together—you cannot possibly do better than send at once the Coupon below, duly filled in, to our office as directed. We undertake to forward FREE OF CHARGE a Sample Bottle of these life-giving recuperators. They are simply splendid as a Tonic and Brain Stimulent, excellent in eradicating Indigestion, and wonderful in restoring shattered nerves. You cannot possibly appreciate the marvellous curative possibilities by listening to argument, but a free test will quickly convince you.

Free of Charge

The Nerve Coupon attached entitles every applicant to one Sample Bottle of Coleman's Pills, absolutely free of charge and post paid. After trial, the pills can be obtained at most Chemists' and at all the Branches of Boot's Drug Company, Taylor's Drug Company, and other Stores, in bottles at 1/1½, 2/9, 4/6, 9/-, and 21/- each; or J. Chapman & Co., Ltd:, will send post free direct on receipt of Name and full postal address. The larger sizes effect a great saving.

The Nerve Coupon.

Fill in this form and send to Messrs. Chapman & Company, Ltd., Norwich.

NAME

ADDRESS

"SANDOW'S MAGAZINE."

Date of issue to be filled in.

1904.

AMUSEMENTS.

THEATRES.

ADELPHI—Every Evening, at 8.15, "The Prayer of the Sword." Mat. Sat., at 2.30.

APOLLO—At 8.15, "Veronique." Mat. every Sat., at 2.

AVENUE—Every Evening, at 8.30, "The Master of Kingsgift." Mat. Sat., at 2.30.

COMEDY—Every Evening, at 9, "His Highness my Husband." At 8.20, "The Outpost." Mat. Sat., at 2.30.

CRITERION—At 9, "The Duke of Killierankie." At 8.30, Mr. Frank Lincoln. Mat. every Wed. and Sat., at 3.

DALY'S—Every Evening, at 8, new musical play, "The Cingalee." Mat. Sat., at 2.

DUKE OF YORK'S—At 8.20, "Merely Mary Ann," by Israel Zangwill. Mat. Thurs. and Sat., at 2.20.

GAIETY—At 8, a new musical play, "The Orchid." Mat. Sat., at 2.

GARRICK—At 8.45, Mr. Arthur Bourchier and Miss Violet Vanbrugh in "The Chevaleer." At 8, "The Conversion of Nat Sturge." Mat. Wed. and Sat., at 2.30.

HIS MAJESTY'S—Mr. Tree—At 8.20, Shakespeare's comedy, "The Tempest." Mat. Wed. and Sat., at 2.15.

IMPERIAL—Mr. Lewis Waller—At 8.15, "His Majesty's Servant." Mat. Wed. and Sat., at 2.30.

LYRIC—"The Earl and the Girl," every Evening, at 8.15. Mat. Wed., at 2.30.

NEW—At 9, "Beauty and the Barge." At 8.20, "That Brute Simmons.' Mat. Wed. and Sat., at 2.20.

PRINCE OF WALES'S—At 8, "Sergeant Brue." Mat. Wed. and Sat., 2.15.

SAVOY—Every Evening, at 8.15, Mrs. Brown-Potter in "Forget-Me-Not," followed by "Cavalleria Rusticana." Mat. Thurs., at 2.30.

ST. JAMES'S—Mr. George Alexander—At 9, "The Garden of Lies." At 8.15, "The Decree Nisi." Mat. Wed. and Sat., at 2.30.

VAUDEVILLE—At 8.15, "The Catch of the Season." Mat. Wed. and Sat., at 2.15.

WYNDHAM'S—Every Evening, at 9, "A Wife without a Smile." Preceded, at 8.30, by Miss Fanny Wentworth. Mat. Wed. and Sat., at 3.

VARIETY THEATRES.

ALHAMBRA—At 7.45, Grand Varieties. Up-to-date Pictures on the Urban Bioscope. Manager, Mr. George Scott.

EMPIRE—Varieties, the Biograph, &c. Doors, 7.45. Manager, Mr. H. J. Hitchins.

LONDON HIPPODROME—Daily, at 2 and 8 p.m. An entertainment of unexampled brilliance. Managing Director, Mr. H. E. Moss.

OXFORD—Varieties. Always a good Company. Doors, 7.25. Sat. Mat., at 2.30. Manager, Albert Gilmer.

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CHIEF SPORTING FIXTURES

FOR NOVEMBER.

**** *The figures in parentheses in this Index denote the number of days' racing at each Meeting.*

TURF.

1—Birmingham (1).
1—Portsmouth Park (1).
3—Hereford Autumn (1).
4—Lingfield (2).
4—Hooton Park (2).
4—Leopardstown (2).
7—Lincoln Autumn (2).
8—Hawthorn Hill (1).
9—Cardiff (1).
9—Liverpool Autumn (4).
10—Newport (Mon.) (2).
14—Leicester November (2).
16—Derby Autumn (3).
18—Hamilton Park (2).
19—Hurst Park (1).
21—Warwick Autumn (3).
22—Maiden Erlegh (2).
24—Aldershot (2).
24—Manchester November (3).
28—Birmingham (2)
30—Leicester (2).

HOCKEY.

5—Stockton: Lancashire *v.* Durham.
5—In Cheshire: Cheshire *v.* Notts.
9—Oxford: Oxford University *v.* Hockey Association.
16—Oxford: Oxfordshire *v.* Hockey Association.
17—In Westmorland: Lancashire *v.* Westmorland.
23—Ashford, Kent: North Metropolitan *v.* Hockey Association.
30—Surbiton: Southern Trial Match.

BILLIARDS.

1, &c.—London Charity Handicap (Sectional Tournaments).
7-12—J. Roberts *v.* T. Reece, at Orme's, Manchester.
7-12—£1,000 Tournament—C. Harverson (rec. 2,250) *v.* W. Cook (rec. 2,750), 9,000 up, 3 and 8 p.m., at Soho-square.
14-19—J. Roberts *v.* C. Harverson, at Orme's, Manchester.
14-19—£1,000 Tournament—C. Dawson (scratch) *v.* M. Inman (rec. 2,750), 9,000 up, 3 and 8 p.m., at Soho-square.
21-26—£1,000 Tournament—H. W. Stevenson (scratch) *v.* F. Bateman (rec. 2,500), 9,000 up, 3 and 8 p.m., at Soho-square.
21-26—J. Roberts *v.* M. Inman, at Orme's, Manchester.
28 to December 3—J. Roberts *v.* F. Bateman, at Orme's, Manchester.

COURSING.

1, &c.—South Lancashire.
1—Sydmonton (1).
2—Ennis (Co. Clare) (2).
2—Gravesend and Cliffe Clubs (1).
3—Hanbury (1).
3—Sussex County Club (Barnham) (1).
4—North of England Club (Raby) (1).
4—Brean Club (1).
8—Portarlington Club (1).
8—Co. Limerick Club (2).
8—Creagh Club (2).
8—North of England Club (Hornby Castle) (2).
9—Navenby & Blankney (2).
9—South Clare Club (2).
10—Swaffham Club (2).
14—North of England Club (West Rainton) (1).
16, &c.—Altcar.
16—Gravesend & Cliffe Clubs (1).
17—Co. Wexford Club (1).
17—Sussex Co. Club (Ford) (2).
22—South Essex Club (2).
29—Brigg (2).

CROSS COUNTRY.

5—S.L.H.—"Nicholls" Cup Match *v.* Blackheath H., at West Wickham.
5—Cambridge H.—Three-mile Steeple-chase Handicap.
12—S.L.H.—Veterans' Five-mile Handicap.
12—Cambridge H.—Inter-club Walking Handicap with Herne Hill H., from Blackheath to Crown Hotel, Chislehurst (five miles).
12—S.L.H.—Match against Cambridge University H. and H., at Croydon.
12—Northampton Institute.—Run over Four-mile Course and Novices' Mile Race home, at Forest Gate.
19—Northampton Institute.—Four-mile Handicap at Forest Gate.
19—Cambridge H. General Run.—Annual Concert at Bermondsey Town Hall.
26—Cambridge H.—Five-mile Cross-country Handicap (five prizes).
26—Northampton Institute.—Ordinary Run and Novices' Mile Race home, at East Finchley.
26—S.L.H.—Match *v.* Oxford University H. and H., at Oxford.

BOXING.

7, 14, 21, and 28—Contests at the National Sporting Club, Covent Garden, W.C.
5, 12, 19, and 26—Contests at Wonderland, Whitechapel, E.

GOLF.

5 and 12—Worsley: Stroke Competitions.
5—West Lancashire: St. Andrews Meeting.
5-6—Manor (Ashford): Hunter's Cup.
19—West Derby: St. Andrews Meeting—Gold Cross and Memento Annual Meeting.
19—Ormskirk: St. Andrews Meeting—Wignall Challenge Bowl and Memento.
21—Hesketh (Southport): St. Andrews Meeting—Miss E. Crooks' Prize (one round medal play).
30—West Lancashire: Ladies' Scratch Challenge Cross and Memento.

FOOTBALL.

ASSOCIATION.

2—Herts *v.* The Army, at Hitchen.
2—Cambridge University *v.* Old Westminsters, at Cambridge.
5—Welsh Senior Cup, First Round.
5—Irish Cup, Fourth Round.
5—Lancashire Junior Cup, First Round.
9—Middlesex *v.* Berks and Bucks, in Middlesex.
9—G. O. Smith's XI. *v.* Cambridge University, at Ludgrove.
12—Corinthians *v.* Portsmouth, at Leyton.
12—Casuals *v.* Cambridge University, at Tufnell Park.
12—Football Association Cup Competition, Qualifying Series, Fourth Round.
12—Scottish Qualifying Cup, Sixth Round.
16—Weybridge *v.* Cambridge University, at Weybridge.
19—London *v.* Corinthians, at Leyton.
19—Clapton *v.* Cambridge University, at Upton.
19—Amateur Cup Competition, Qualifying Series, Third Round.
19—Irish Cup, Fifth Round.
23—Surrey *v.* The Army, at Croydon.
24—Norfolk *v.* Essex, at Norwich.
26—Corinthians *v.* Manchester City, at Leyton.
26—Cambridge University *v.* Oxford City, at Cambridge.
26—Football Association Cup Competition, Qualifying Series, Fifth Round.
26—Scottish Qualifying Cup, Final Tie.
28—Tottenham Hotspur *v.* Cambridge University, at Tottenham.

For League Fixtures, *see* Sporting Papers.

RUGBY.

2—Midland Counties *v.* Kent, at Leicester.
2—Oxford University *v.* Bristol, at Oxford.
2—Glamorgan *v.* Devon, at Cardiff.
5—Blackheath *v.* London Scottish, at Blackheath.
5—Richmond *v.* Bristol, at Richmond.
5—Oxford University *v.* Leicester, at Oxford.
5—Cambridge University *v.* R.I.E.C., at Cambridge.
5—Durham *v.* Yorkshire, at West Hartlepool.
5—Cheshire *v.* Lancashire, in Cheshire.
7—Cambridge University *v.* Edinburgh University, at Cambridge.
9—Surrey *v.* Middlesex, in Surrey.
9—Oxford University *v.* United Services, at Oxford.
12—Yorkshire *v.* Northumberland, at Hull.
12—Cornwall *v.* Somerset, at Redruth.
12—Cumberland *v.* Cheshire, in Cumberland.
12—Blackheath *v.* Cambridge University, at Blackheath.
14—Cambridge University *v.* Edinburgh Academicals, at Cambridge.
16—Middlesex *v.* Midland Counties, at Richmond.
17—Kent *v.* East Midlands, at Blackheath.
19—Lancashire *v.* Yorkshire, in Lancashire
19—Cambridge University *v.* London Scottish, at Cambridge.
19—Blackheath *v.* Bristol, at Blackheath.
21—Cambridge University *v.* West of Scotland, at Cambridge.
23—Blackheath *v.* East Midlands, at Blackheath.
26—Cornwall *v.* Devon, in Cornwall.
26—Leicester *v.* Cambridge University, at Leicester.
26—Richmond *v.* Blackheath, at Richmond.
28—Cambridge University *v.* Edinburgh Wanderers, at Cambridge.
30—Middlesex *v.* Kent, at Richmond.
30—Oxford University *v.* Plymouth, at Oxford.

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